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JANUARY 1978

An F–14A "Tomcat" taxis onto a NAS, Miramar, Calif., runway. The planes are piloted and maintained by men and women of Fighter Squadron 124 (VF 124), one of two Navy training units for flight crews and maintenance people destined for fleet squadrons. (Photo by PH2 Robert Weissleder).

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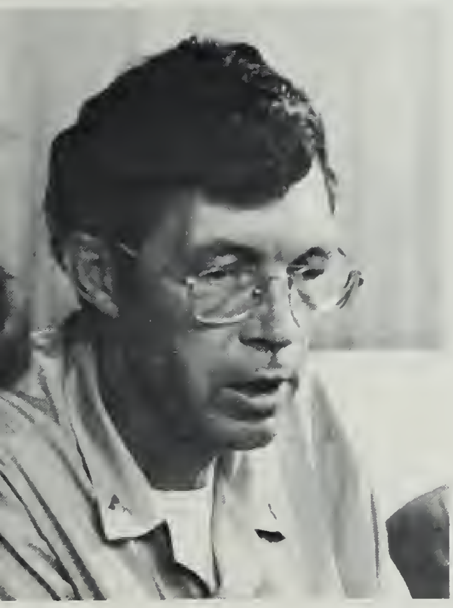

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ALL HANDS

MAGAZINE OF THE U.S. NAVY — 55th YEAR OF PUBLICATION
JANUARY 1978 NUMBER 732

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Front: *Knox* class frigate USS *Pharris* (FF 1094) being replenished at sea by the replenishment fleet oiler USS *Milwaukee* (AOR 2).
Back: Phone talker aboard USS *Milwaukee.* Both front and back covers by PH1 Terry Mitchell.

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Currents

1977 Launchings, Commissionings ● Last year was a good year for the U.S. Navy: 11 ships launched, 14 commissioned and one, the guided missile destroyer USS *King* (DDG 41), recommissioned Sept. 17.

Launched:	
Cincinnati (SSN 693)	Feb. 19
Stump (DD 978)	March 21
Belleau Wood (LHA 3)	April 11
Emory S. Land (AS 39)	May 14
Conolly (DD 979)	June 3
New York City (SSN 696)	June 18
Moosbrugger (DD 980)	July 23
Indianapolis (SSN 697)	July 31
John Hancock (DD 981)	Sept. 28
Birmingham (SSN 695)	Oct. 29
Nicholson (DD 982)	Oct. 29

Commissioned:	
Elliot (DD 967)	Jan. 22
Arthur W. Radford (DD 968)	April 16
Philadelphia (SSN 690)	June 17
Baton Rouge (SSN 689)	June 25
Pegasus (PHM 1)	July 9
Peterson (DD 969)	July 9
Texas (CGN 39)	Sept. 10
Caron (DD 970)	Oct. 1
Saipan (LHA 2)	Oct. 15
Dwight D. Eisenhower (CVN 69)	Oct. 18
David R. Ray (DD 971)	Nov. 12
O'Brien (DD 975)	Dec. 3
Oliver Hazard Perry (FFG 7)	Dec. 17

Outstanding Recruiter And Recruiting District Named ● Data Processing Technician 1st Class Charles W. Krahn, Jr., Recruiter in Charge of Navy Recruiting Station, Ocala, Fla., is the Navy's outstanding recruiter for Fiscal Year 1977. Petty Officer Krahn was selected from among eight Navy recruiters nominated for the award. One recruiter from each of the six Navy recruiting areas and two from the Naval Reserve Command (Surface and Air Programs) were nominated. Navy Recruiting District Miami has been named best in overall recruiting, best in enlisted recruiting, and best in officer recruiting from among the 43 recruiting districts within the Navy. Ceremonies honoring Petty Officer Krahn, the other nominees and the Commanding Officer of Navy Recruiting District Miami, Captain Jack M. Kennedy, will be conducted in Washington, D.C.

Alien Address Reports Due In January ● All aliens who have been issued an alien registration card and are in the United States or one of its possessions must report their addresses during January of each year, even though the address may be the same as the previous year's. Address reports must be filed on Form I-53. The alien address report forms are available at any U.S. post office and should be returned to any U.S. post office when completed. If an alien is out of the country during January and no report has been filed, one must be submitted within two days of re-entry. There are severe penalties for failure to comply with this law, including fine, imprisonment and deportation.

Three Ships Are Praised For Port Calls ● Two American ambassadors recently praised three U.S. Navy ships for successful port visits in November. The U.S. Ambassador to Liberia cabled the commanding officer of *USS Julius A. Furer (FFG 6),* "You and your men were gracious guests and thoughtful hosts in the best traditions of the U.S. Navy," after Furer had called at Monrovia. Similarly, the U.S. Ambassador to Norway praised the crews of *USS Joseph Hewes (FF 1078)* for that ship's visit to Trondheim, and *USS Spruance (DD 963)* for a visit to Olso. The ambassador was particularly impressed by the professionalism displayed by the officers and men of both ships, and the manner in which they were received by the local citizens.

Navy To Resume VRB Claim Payments To Non-Litigants ● The Navy is resuming payments of VRB claims to claimants not named as litigants in the Supreme Court's Larinoff decision now that a Federal Court injunction stopping such payments has been lifted. The injunction went into effect on Sept. 26, 1977. Claims submitted by active duty members are being processed concurrently with those submitted by former members. More than 11,000 claims have been received by the Bureau of Naval Personnel to date. About 2,500 have been processed, certified and forwarded to the Navy Finance Center in Cleveland for payment. All eligible personnel will be paid as expeditiously as possible. Claim processing and certification of the 2,600 litigants is 90 per cent complete. Payment of these claims will be made from funds administered by the Justice Department.

Navy Honors Top Bachelor Enlisted Quarters ● Naval Station San Diego and Naval Air Facility Washington, D.C., are winners of the 1977 Elmo R. Zumwalt Awards for the best managed BEQs in the Navy. The two won in the large and small categories respectively. The winners were selected from 18 Naval activities nominated for the annual award which is named for the former Chief of Naval Operations, and recognizes achievement in the management and operation of Navy Bachelor Enlisted Quarters. It is co-sponsored by the Navy and the American Hotel and Motel Association. Naval Technical Training Center Corry Field, Fla., finished second in the large category while Portsmouth Naval Shipyard was runner-up in the small. Awards were presented by the Secretary of the Navy at ceremonies attended by the Chief of Naval Operations and the Chief of Naval Personnel in Washington, D.C.

All-Navy Talent Contest Winners Announced ● ET2 David Salmon, Jr., a vocalist from Naval Communication Station, Nea Makri, Greece, won the 1977 All-Navy Talent Contest held at the Naval Training Center, San Diego, Calif. Second place winners were the "Panhandle Mountain Boys," a country and western/bluegrass group from the Naval Aerospace Regional Medical Center, Pensacola, Fla. The members of the group are HN Charles Peacock, HM2 Steve Janke, HM3 Charles Covington, HM3 Mark Barnes and HM2 Ed Roundtree. PH2 Roger Hamerlinck, a vocalist from the Atlantic Fleet Headquarters, Support Activity, Norfolk, Va., took third place honors in the competition.

50 Miles from N.Y.

"All in all, there were many compensations for service in the peacetime Navy."—"The Quiet Warrior: A Biography of Admiral Raymond A. Spruance," by Thomas B. Buell.

——o——

Cadets at West Point are still laboring through the Napoleonic Wars and unraveling mysteries surrounding Blücher, Jourdan and Marmont. One professor, however, is not an ex-tank commander—he's a ship driver who suffers the ignominies of "Beat Navy" and "Sink Navy" scrawled on blackboards on the most sacred of nautical days—Navy Day.

For this, the erring cadets are tolerated—much as any students whose professor is bound to pen the last iota in a black memo book. Some discussion follows as to the strength of both the professor's and the cadets' convictions concerning the annual struggle at Philadelphia. Then it's time, once again, to take up the chronology of the citizen from Ajaccio.

In some respects, Commander Thomas B. Buell is on a three-year sabbatical at West Point's History Department in Thayer Hall. His present tour could be compared to sending a theologian on retreat or detailing a mountain climber to conquer Everest—he's doing exactly what he loves. Furthermore, he has the opportunity to associate with the finest soldier-scholars in the United States Army.

"We have the smartest officers in

the Army right here, the cream of the crop," he said. "A teaching billet in the Army—especially one at the Point—is actively sought; it's a career enhancing assignment.

"The Navy does not emphasize instructor duty in the same degree. Our officers aim for shipboard command, staff duty and other vital career stepping stones, and well they should."

While the Military Academy faculty is almost entirely uniformed, approximately half of the teaching assignments at his alma mater—the U.S. Naval Academy—are handled by civilian faculty members. It's been that way since 1845 and it will continue, for each service tailors its faculty for its unique mission. Thus fewer lectern assignments are available for career Navy officers.

Consequently, Buell considers himself lucky to be able to teach military and naval history, as the teaching of humanities is not normally part of a senior naval officer's career. His present assignment is director of the senior core course in the History of the Military Art, in addition to his collateral duty as the Navy's spokesman in the spiritual home of the United States Army.

A former skipper of USS *Joseph Hewes* (FF 1078), Commander Buell wrote *The Quiet Warrior: A Biography of Admiral Raymond A. Spruance,* which was published in 1974. He is currently involved in a complex study of another World War II leader, Fleet Admiral Ernest J. King, which should be published soon. Admiral King, who died in 1956, attempted to write his memoirs but illness precluded this in his final years. As a result, his autobiography details his pre-World War II career and becomes sketchy in its treatment of the most important years of his life. It is in this area that Commander Buell intends to focus.

CDR Thomas B. Buell, naval liaison officer and a military history professor at West Point. (Photo by Mark M. Braunstein)

On writing factual biographies the commander said, "You often have to wait until your subject has passed away before you can write about him. Yet you can't wait too long, for you need his contemporaries who are still alive to recall events about the person."

Concerning the Navy group—it is expected that the present six-officer contingent will be increased to about 13, probably within two years. As the Army faculty is more than 500, they'll be spread thin—as is the current group—however, with the increase in numbers will come a greater visibility of naval presence to say the least.

The exchange of faculty members at West Point has been going on for some years but, until recently, it was limited to only one naval officer in the history department. As one result of the recent Clements Committee on Excellence in Education, numbers were increased last year and continued through the summer until there were six. This core is bolstered, in numbers at least, with the presence of six exchange midshipmen from the Naval Academy who spend one semester at the Point. Six cadets, as well, are TAD, so to speak, at Annapolis at the same time. The midshipmen-cadet exchange is now in its third year and a like exchange exists with the Air Force Academy.

Recently appointed Superintendent Lieutenant General Andrew J. Goodpaster sees merit in the exchange system and feels that it could be expanded in the future but "that remains to be seen."

General Goodpaster retired with four-star rank in 1974 but was recalled to active service to become the Point's 51st superintendent. He has had first-hand experience with cadet-midshipmen exchanges. As a "cow" (second class or junior) he made a summer training cruise aboard the battleship *New York* in the late 30s. On that cruise to and from Europe he received training in engineering, navigation and seamanship, and found the experience to be valuable in later years.

The general said that he "is impressed by the Navy members of the faculty" and with the midshipmen.

Going from the superintendent to one of the exchange midshipmen—in this case, Sam Sichko and his cadet buddy, Mitchell Vervoort—All Hands found enthusiastic support for the program. Both men felt that it was accomplishing all set goals and then some. Sichko said that the Point deals more with the military side of life than Annapolis—marching, military regimen and the like.

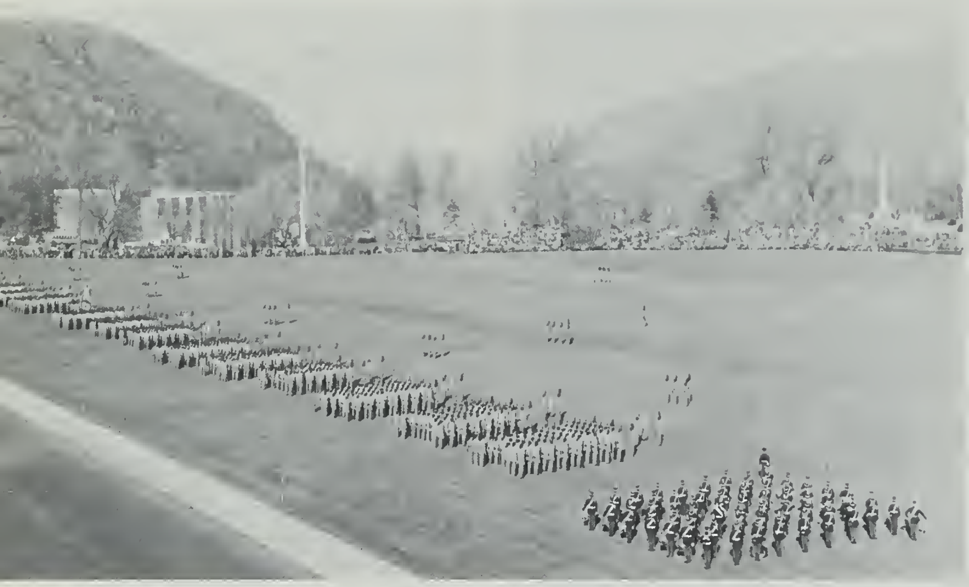
"I found it rough getting used to their outside formation at reveille," Sichko said, "but that's minor."

For the Annapolis second classman, his stay at West Point is particularly useful—he has every intention of entering the Marine Corps upon graduation and the Point's basic mission is to provide combat officers for the basic five of 12 professional fields—armor, infantry, signal corps, field artillery (including 88 or air defense artillery), and the engineers.

There may be an expansion of these fields in the next couple of years when women are graduated from the Military Academy but that step is still in the future.

Vervoort has positive thoughts on the exchange program from the Army cadet viewpoint and sees it as an opportunity for midshipmen and cadets to exchange information and get to know each other's service while dispelling fixed notions.

"Yeah," said Sichko, "the cadets have learned that midshipmen don't walk sideways, after all."



Midshipman Peter Krug calls the program a "viable activity which gives participants an opportunity to learn about the different types of services making up the U.S. military."

Midshipman Scott Pursley sees the exchange as a vast improvement over the exchange weekend he made to the Point as a plebe. "We find ourselves talking like cadets after a while," said Pursley. "Suddenly, we realize that when we use 'we' in conversations, the word really means 'Army'."

Midshipmen are not selected at random to attend the semester on the Hudson. Sichko, like the other five at the Point, first had to submit a request at the end of his sophomore year and then was interviewed. Meanwhile, Annapolis took a close look at his grades and performance. No one is selected just because he wants to go; the students must earn their slots.

When Sichko and the others return to the Naval Academy, they are expected to submit a report—either written or oral—on their experiences and, particularly, on the merits of the exchange itself. Naturally, they—along with the midshipmen who went to the Air Force Academy—will then become unofficial ambassadors at Annapolis as they relate their experiences to their peers. It is at this stage—well after the end of the September-January semester—that the program begins to reap its own rewards.

There's no doubt that the naval officers on the faculty relish their tour—everywhere there's enthusiasm, largely because their cadet students are intelligent and well disciplined. Lieutenant Commander Kenneth W. Meeks, a CEC officer, teaches an elective which may strike an outsider as a little odd at first—he teaches "Reinforced Concrete Design." This deals with stress, strain and weight limitations of structures made of concrete and steel.

All this may seem a little out of the ordinary until one realizes that ever since 1802 (actually 1817 when Sylvanus Thayer took the bull by the horns) the Point has been producing military engineers and our land is dotted with their canals, bridges and flood-control projects.

"I always thought I wanted to teach," Meeks said, "so when I received these orders last summer at Camp Lejeune, I welcomed the opportunity. Now I'm seriously thinking of entering the teaching field when I retire."

Later, Meeks was talking to other naval types, including Lieutenant Commanders Walt Hogan and Joe Jenners, about the best way to handle the occasional students who lack motivation. A company tactical officer, Lieutenant John S. White, answered that one method was to take the city out of the boy—actually, deny a senior his weekend in New York City and, behold, miracles take place right before your eyes.

"Suddenly," he said, "the shirker is responding in class with the right answers and his grades begin a steady uphill climb. It usually takes only one 'lost weekend' for them to see the light." Nevertheless, all agreed that West Point cadets represent the very finest of America's youth and that teaching these outstanding young men and women is the greatest satisfaction of serving at the Military Academy.

Those good enough to draw an assignment at the Point can expect a two-year tour—some may stay three years but there's no guarantee. For the families, it's ideal shore duty, a time for the children to get to know their fathers as other than that friendly stranger who drops in between deployments at sea. Quarters are those almost legendary on-post affairs, built in the days of lath and plaster walls and hardwood floors.

The Point is a beautiful place year 'round and, as a self-contained community, it offers everything from a well stocked commissary, to athletic facilities, horseback riding, and numerous clubs and social events.

One of the officer's young daughters summed it all up early one fall morning as she arrived for her riding lesson—flinging her arms wide, she proclaimed to the world, "God, but I love this place."—J.F.C.

One of a Kind

By her own admission, she's a terrible cook, a slow reader, and suffers from poor night vision. Besides, she drives a compact roadster of questionable heritage and doubtful health—she actually "prays" it up hills.

She's also an enthusiastic naval officer, a skilled athlete, and an intellectual to boot. Herein meet Lieutenant (jg) Christina Batjer from Carson City, Nev., the most junior officer on the entire Military Academy faculty.

"I've only had two assignments before reporting to West Point, so I haven't the vaguest idea what I would like to do next," she said.

"Besides, this assignment is too interesting for me to worry about what's next."

Christina is the only woman officer on the present six-member Navy faculty contingent at the Military Academy, having been "recruited" by the Department of Social Sciences. She's herself at all times; that's what they like about her.

When the naval liaison officer, Commander Tom Buell, first mentioned LTJG Batjer and some of her accomplishments, the honest (unspoken) reaction was—I've heard this before. But one has to admit the commander was right.

When she arrived at the Point in January, 1977, LTJG Batjer immediately got involved with preparations for the first women cadet arrivals. This included standing in formation and being chewed out by a "firstie"—even though he was one of her American Government students. Along with other available women volunteers—mostly wives of faculty members (including Patty White, the wife of Navy Lieutenant John White)—she went through long, mock drill sessions designed to "educate" male cadet officers in handling and addressing the soon expected, first women cadets.

Lt. (jg) Christina Batjer.

There was a fiasco or two and firsties were constantly repeating "As you were" lines to the "arrivals." Firsties, it seems, never make mistakes and the "As you were" phrase actually means, "Forget it, cadet, *you* caused me to give an incorrect order." LTJG Batjer remained braced, no matter the severity of the chewing out and no matter, too, that her firstie wasn't intimidated by the silver bars on her shoulder.

It wasn't long before she became the U.S. Military Academy's women's tennis coach and assistant tactical officer during New Cadet Basic Training. An outdoor type, she also took part in a forced night march and in rappelling exercises. "It's a wonder I didn't kill myself," she said. "My below par night vision forced me to hook onto the belt of the officer before me. Otherwise, at one point, I would have gone over a cliff for sure."

How about the heavy steel helmet? "At first it's murder," she said. "but after two days, one gets used to it. Still, it hits against the back of the neck and that ache remains for days."

Another thing about LTJG Batjer is the master's degree she holds—public administration. What's it all about? "Well, it deals with government and how the government runs, especially on the municipal level. It's really interesting and quite divorced from political science," she said.

As for her quarters, LTJG Batjer describes them as "palatial." "Believe me," she said, "there was some static among senior types when I was assigned quarters overlooking the Hudson, but I've learned to live with it."

Looks, brains and a solid career—a girl can't have everything. ⚓

...for lack of bands and gun salute

How does one go about living with the Army when it's quite obvious that he's but one member of a vastly outnumbered Navy contingent? Unobtrusively, of course.

Yet there comes a time each year, on October 13, when one must proclaim his true colors. This he does, although not so unobtrusively, but not in a flamboyant manner either.

On the Navy's 200th Birthday a couple of years ago, Commander Tom Buell and his family had just reported for duty at the Military Academy and were the only naval family at West Point. The Buells could not allow the Navy's bicentennial birthday to pass unnoticed, so they rented a room at the West Point Officers Club, decorated it with Navy recruiting posters and blue and gold bunting, and invited the Superintendent and the faculty of the History Department to join in the celebration. Refreshments included a Navy birthday cake and several bottles of cold duck. Everyone came, toasts were exchanged, and a new tradition was established at West Point.

This year, Commander Buell and his five-officer contingent marked this Navy Day as it was marked for the past two years, with a cake cutting and toast at the Military Academy's Officers' Club during the noon hour. The six exchange midshipmen attended as well, each wearing a different uniform to display their naval wardrobe. This may not sound like an earth-shattering event, but it's their way of thanking their Army counterparts and showing, as well, their appreciation for the support given to them.

Pulling off the 90-minute affair called for speed runs to the Franklin D. Roosevelt Museum across the Hudson River to pick up ship models given as a loan for the day; sending engraved invitation cards, and each Navy officer voluntarily digging down to the tune of $25 to fund the event.

It all bears fruit. The Point is beginning to look upon the Navy Day Cake Cutting as an annual event, a tradition of sorts. The Army turnout grows each year. One could dream of bands, boatswains' pipes, sideboys, gun salutes, and . . . oh, well. In reality, one has to settle for a sword with which to cut the cake and a hearty toast wishing well to all. ⚓

In Patton's Footsteps

Some may cry these days that there's no humor at the Point. It's there, in countless small ways. They just don't go in for loud guffaws. Here are a few even old Sylvanus Thayer would chuckle at:

The Point turned the tables on George S. Patton. The general—who spent one year at V.M.I. and another five at the Point pursuing his second lieutenant's bars—boasted that he never stepped foot in the library in all his years on the cliffs overlooking the Hudson.

Well, it seems someone (who had to have a master's in library science at the very least) saw to it that "Georgie's" statue was placed across the street *facing* the new library. The general may be in full combat regalia, including his matching 45s, but he's condemned for all time for that indiscretion of his cadet years.

In another vein—someday a whole book will be written on answers given by plebes, whether Army or Navy, on why they sometimes fail to salute passing officers. Consider—

The cadet at the Point was called up short by a Marine major and asked the usual, "Why didn't you salute me, CADET? Don't you recognize my uniform?"

"Of course I recognize it, SIR."

"Well, just what do you think I am?"

(A slight hesitation) "An officer in the Army veterinary Corps, SIR?"

Marine Major Don Herring is now known as "Doc" Herring.

Navy Lieutenant Commander Walt Hogan thought he'd get into the problem with the old bus driver routine. He called the cadet up short and said, "CADET, do you see the gold on my hat?"

"Yes, SIR, I do."

"Well now, CADET, if I'm wearing gold on my hat, then I must be a bus driver. But as I look around the area, I don't see any bus parked hereabouts.

"Tell me, CADET, if there's no bus around here, what do you suppose I am?"

The cadet pondered that for a second and then fairly screamed, "An Admiral, SIR?"

"Ah well, mister. On your way."⚓

Women in Decision-making

An Executive Search program for the Department of the Navy was formally established on June 29, 1977, when the Secretary of the Navy, the Honorable W. Graham Claytor, Jr., signed SECNAV Instruction 12335.1.

Primary purpose of this new function is to locate and attract quality females and minorities, along with other applicants, for consideration for civilian, executive level positions (GS-15 through 18) within the Department of the Navy. This action is in keeping with administration policy as expressed in President Carter's memorandum in March, calling for a continued effort to increase the representative numbers of minorities and women citizens in top level positions.

The implementing policy, specific guidance, and operating procedures governing "executive search" are applicable to all Navy and Marine Corps activities employing civilians.

The dearth of females and minorities in managerial and decision-making positions and past hiring practices at these levels was the basis for establishing this function. As of Jan. 31, 1977, there were 2,105 full-time career GS-15s within the Department. However, there were only 30 females (1.4 per cent) and 53 male minorities (2.5 per cent).

At this same period of time there were 189 GS-16s, which included 2 females (1.1 per cent) and 4 male minorities (2.1 per cent). There were no females at the GS-17 or 18 level and only one male minority at the GS-17 level. This data when compared to the female and minority representation of 19 years ago are virtually unchanged.

It is now mandatory that all GS-15 through 18 positions, to be filled under competitive procedures, be advertised in the nationally distributed OCP vacancy listing for a minimum of 30 days, with the minimum area of consideration being the Federal Government. Recruitment and examining plans must be received by the Department's Director of Civilian Personnel (Code 26 for GS-15 level positions, and Code 35 for GS-16 through 18 and Public Law positions) prior to advertising.

A special search application file has been established in the Navy Department's Office of Civilian Personnel (OCP) and will be maintained by occupational category for applicants who appear to be qualified at the GS-15 through 18 level. Voluntary applicants for GS-15 level positions must have career status or Civil Service Commission (CSC) established eligibility for retention in this file. This function has been staffed with two specialists who are conducting searches. For information, contact:

Staffing Branch
Office of Civilian Personnel
Department of the Navy—OCP Code 26A
Washington, D.C. 20390
Telephone: Autovon 224-4061
(202) 694-4061

Many contacts have been made with other Government agencies, private industry, search firms, and minority and women's professional organizations and societies. The staff has established recruitment sources and developed strategies to assist activities in locating well qualified minorities and women.

In support of this new function, the Staffing Branch of OCP obtained data from the CSC on 15 selected occupational groups germane to the Department of the Navy's mission. This data depicts the representation, by occupation and grade, throughout the Federal Government of both sexes and all ethnic groups. The Staffing Branch is now in the process of summarizing the data for distribution to activity managers. This information will enable activity managers and OCP to jointly decide if the vacancy should be advertised as required—all Government sources—or if it should be expanded to the private sector, because of limited representation within the federal sector. The Director of Civilian Personnel will identify selected vacant positions for which an executive search may be fruitful.

The reporting requirements state that all positions filled at the GS-15 level and above will be identified by series, grade, number of qualified applicants received (by sex and ethnic code, if known), number of candidates who were within the range of selection (by ethnic code and sex), and selectee (by ethnic code and sex).

It is anticipated that the overall representation of females and minorities will increase along with the improvement of the overall quality of applicants for all of the Department of the Navy's GS-15 through 18 and equivalent level positions.

At the request of any activity, the "Special Search Team" will provide assistance as a supplement to their recruitment effort to attract quality minority and female candidates. This assistance will be provided upon receipt of the recruitment plan and crediting plan. These documents will enable the search team to amplify the activity's efforts in the search for candidates with the knowledge, skills, and abilities as they relate to the specific vacancy. ⚓

ROMEO CLOSE UP

STORY AND PHOTOS
BY PH1 TERRY C. MITCHELL

Bluejackets in oil-soiled lifevests and wear-polished helmets work on the maindeck faking down lines, unlashing hoses and lighting off winches. Each man does his job just as he's done it a hundred times before.

Isolated from the topside bustle, the OOD orders a new course. With practiced precision, the helmsman nudges the wheel and USS *Milwaukee* (AOR 2) alters her head ever so slightly.

Above the bridge, a signalman flashes the oiler's course correction and speed to "customers" on the horizon. Simultaneously, Romeo is hoisted at the dip, indicating to all "hungry" ships in the area that *Milwaukee* is steady on course and speed, and preparing to receive them alongside.

Topside personnel make last minute preparations at their stations while the flightdeck crew completes their FOD walkdown looking for debris that could get sucked into a helo's engines.

All clear. *Milwaukee's* helo unfolds her rotors as she is prepared for flight. At the first whine of her auxiliary power unit, flightdeck crewmen don their helmets and lifejackets. There'll be a busy afternoon ahead.

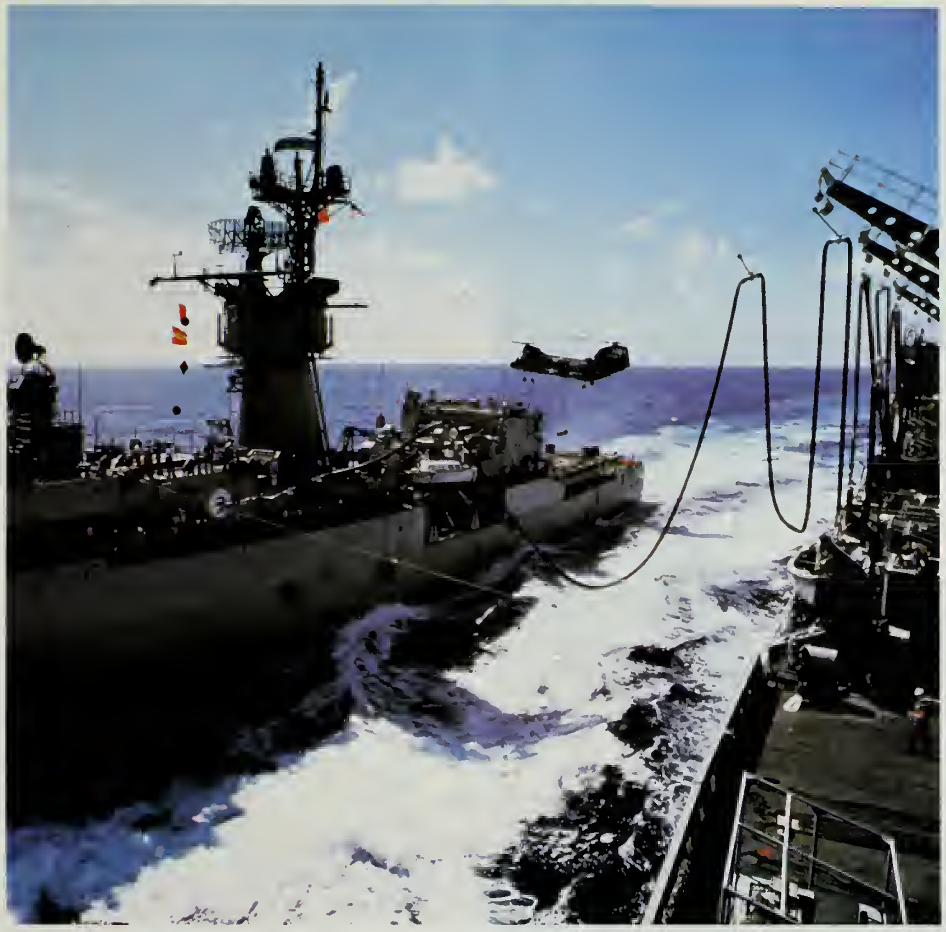
When all stations have reported, "Replenishment details manned and ready," *Milwaukee's* captain orders the signal bridge to close up Romeo.

Ships formerly on the horizon have taken their stations in the oiler's wake. An FFG astern runs her Romeo close up, indicating that she is commencing her approach. A *Milwaukee* signalman calls to the OOD, "Romeo close up!"

Immediately, the OOD signals the bosun of the watch and the word is passed: "Now on the *Milwaukee:* stand by to receive USS *Richard L. Page* on the starboard side." Everything in place and ready; station crews line up as *Page* (FFG 5) comes alongside for unrep.

"On the *Page:* welcome alongside *Milwaukee,*" barks the oiler's 1MC. "Stand by to receive *Milwaukee* shotlines fore and aft. All hands topside, take cover."

At that, gunner's mates aim their stubby shotline guns and fire. A shotline arches its way toward *Page* and wraps around a gunmount. *Page's* waiting crew grabs at the line and

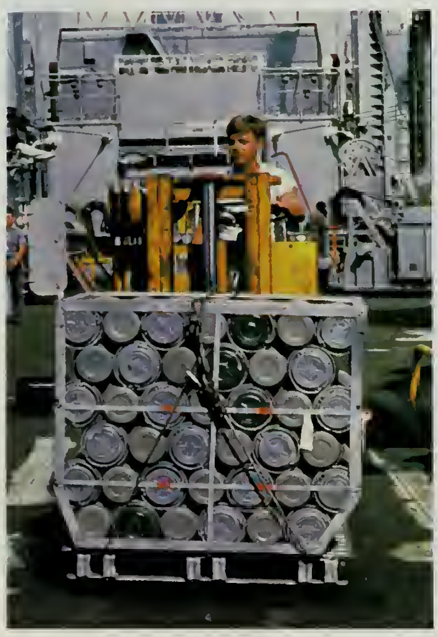


untangles it as one crewmember starts heaving 'round. Shoelace-sized shotline steadily grows larger until it has become a two-and-one-half-inch nylon messenger. *Page's* unrep detail continues to heave 'round, dragging the heavy line across the 80-foot void between ships.

Milwaukee's winch operator slacks the span wire while the messenger line tugs relentlessly. *Page's* crew heaves 'round on the nylon line preceeding the span wire. Two-blocked tight against the prober receiver, *Page's* bosun attaches the span wire's pelican hook and effortlessly slices the thin lines that secure it to the messenger.

The entire operation has taken only minutes, yet hours wouldn't have been enough for an unskilled, untrained crew.

A *Page* crewman waves signal paddles at *Milwaukee* and the oiler takes slack out of the span wire. Methodically, the probe and its hoses rise and roll on their trollies like a cobra preparing to strike at *Page*. Inch by inch the cobra's head lurches toward the wait-



ing receiver. With one rolling lunge and a metallic thunk, the probe seats and locks.

Acknowledging *Page's* signal, a *Milwaukee* station signalman shouts, "Commence pumping," and the black hoses swell.

Probe set and fuel flowing, *Milwaukee's* helo beats its way into the air, circles once and hovers over her flightdeck for the first load—then she's off to *Page* to drop her cargo and return. And that's how it will go—hover, pick up, shuttle to a destroyer's fantail; hover, drop the cargo, and return—again and again throughout the day.

Still the job is not complete; no one can relax. *Milwaukee's* liquid cargo detail takes a fuel sample from that being fed to *Page*. The sample is good—no water, no impurities. Behind him, another man opens a small hatch and drops in a steel tape measure—a human gas gauge measuring how much fuel is left in *Milwaukee's* bowels. He quickly jots it down on a scrap of paper.

On cue from *Page* (after she's had her fill), the station signalman passes the word: "Cease pumping." At that, the valve man springs into action, spinning the valve wheel closed. Fuel flow stops, hoses go limp.

At *Milwaukee's* signal, a *Page* bosun releases the lever on the probe receiver and the cobra's head springs back, empty. *Page* crewmen wipe up the few drops on her deck and pass the signal to slack the span wire. The wire drops from the oiler's king post to just above water level; *Page's* bosun trips the pelican hook. Unleashed, the span wire slithers into the drink as *Milwaukee's* winch shifts into full throttle for the inhaul.

Dropping her last load, the helo circles the two ships once and returns to hover over *Page* for empty cargo nets; then she heads back to refuel and await the next customer.

Unrep completed, the frigate alters course and speed, leaving rooster tails in her wake.

Already, the oiler's crew was manning their stations, ready to take the next ship flying Romeo close up. ⚓

Saltwater Circuit-Riding

STORY AND PHOTOS BY
PH1 TERRY C. MITCHELL

If you think that a chaplain's duties consist of being in a pulpit all the time, think again. In fact, Chaplain (Lt.) Glenn McCranie spends only a little time in a church.

"When I was with the Marines at Camp Pendleton, I went on an amphibious exercise. I was determined to display my best John Wayne style. As soon as the Mike boat ramp dropped, I charged towards the beach like the rest of the Marines. Halfway down the ramp, my foot caught in a gap, throwing me into the surf; I broke my leg. As I floundered in the water, the Gunny came up from behind and grabbed me by the shoulders. I thought I was saved. Then he screamed, 'Where's your rifle Marine?' I turned to reply, he recognized me, and apologized with a terse 'Sorry Chaplain'.

"With that, he left me as he charged off to carry out his assigned duties. Then the platoon sergeant, whose task is to aide stragglers, assisted me to shore. We emerged from the unusually heavy surf arm in arm—a wet Marine and a one-legged chaplain. I was later reported by a highly sophisticated computer as a 19-year-old PFC casualty."

Chaplain McCranie is now a circuit-riding chaplain from the Fleet Religious Support Activity in Norfolk and his adventures haven't stopped.

The history of the circuit-riders began around the end of World War II. Before, chaplains were assigned to various Navy ports, visiting small ships that called in port and organizing religious programs under lay leaders serving on board.

Because these chaplains were limited to serving only an inport ministry, the concept of the circuit-riding chaplain was developed to broaden their ministry; these pioneers were assigned to squadron staffs, serving the ships of each squadron.

The end of the Vietnam War brought staff reductions, fleet reorganizations and personnel cuts, spreading the remaining squadron chaplains rather thin. This erosion stretched the Chaplain Corps even further.

To make the best use of the remaining chaplains, the Fleet Religious Support Activity, U.S. Atlantic Fleet, was established in October 1975 to provide chaplains for deploying units and inport ministries in Norfolk, Charleston and Mayport.

While not on deployment, Chaplain McCranie works much like the old "Ships and Docks" chaplains, visiting nearby ships.

(→)

"We have offices right at the piers, making a ship visit a matter of walking down and going aboard," he said. "We conduct divine services and minister to service personnel according to our own religious convictions. Every person is God's creation and when I am with people, I become a reflection of God's love and concern for them."

Much like a ship's crew, chaplains must train for their own readiness in the form of helo training, firefighting—training that is necessary for shipboard readiness, but religious readiness as well. Each chaplain is allotted 14 days a year to devote to their particular denominational needs such as theological training, retreats or meetings.

Chaplain McCranie has still other duties—"This inport time is when I usually work on reports to my bishop and the district superintendent of my church," he said. "Although I am a naval officer, I am a clergyman representing my church."

The inport time also allows him to prepare for the next deployment. He first contacts the ships he will visit to determine the various religions on board. Shipboard lay leaders are asked what religious supplies they have and what they may need. If necessary, Chaplain McCranie will draw needed supplies and take them with him.

Then, consulting other religious references and chaplains of religions other than his own, Chaplain McCranie charts the religious holy days and assembles prayer books, Bibles, hymnals, sacramental wine and wafers.

With supplies and gear stowed, and the ship underway, he begins visiting "anywhere there are people."

Out on deck he chats with the seamen who are working topside.

In the fireroom he rubs elbows with the rest of the crew in their own element, asking questions, and perhaps giving a bit of on-the-spot counseling.

The evenings are occupied with Bible study groups in his stateroom. Two guitar-playing crewmembers accompany the singing. Afterwards, there is discussion and laughter—feelings of togetherness filling the small space.

The informal meeting over, the chaplain heads for the bridge to broadcast the evening prayer over the 1-MC before "lights out."

The next morning he begins his daily routine anew.

Walking a beat, even though it is on a ship, is nothing new. "I got out of the Navy as an Aviation Storekeeper 3rd Class and went to college. To support myself through theology school, I became a policeman in Atlanta. For more than two years, I was on the riot squad, walking a beat in some of the worst places in town—that sure exposed me to much of life! Then I went on to theology school and became a caseworker for the local county welfare board."

Saturday and Sunday are his busiest days. "Some religions worship on Saturday. Even though I can't participate in their services, I'm sensitive to their needs. I'll schedule a time and a place and make sure they have all the required materials; the lay leader will take it from there."

The Protestant service he conducts is simple. A spare table is quickly transformed into an altar with the placement of a cloth. White candlesticks are aligned with the cross. The Bible is placed on the small stand from his kit, opened and marked to the verse he will read.

"Amen" is said by all in a whisper as the service ends. Chaplain McCranie begins returning everything neatly to a green nylon bag, his kit.

"This bag has been many places and has everything I need to conduct services," he said. "The place the

service is held doesn't matter. I've held services using the hood of a jeep as an altar, or a log and sometimes just a large rock. The best place on a ship is the messdecks, because they seem to be the social center of the ship."

The next morning on the ship, he was back on his beat during the sea and anchor detail. "My bags are all packed and ready in the stateroom and I thought I'd make one last round before we tie up." With that he was off to do a little last minute counseling or perhaps give a blessing to a particular crewmember, looking forward to the next time he might get underway with them on his salt-water circuit-riding. ⚓

GIVING the GIFT of LIFE

BY JO2 DAN WHEELER

Give or take a few pints, adults have five quarts of blood circulating through their bodies. Medical science has discovered no substitute for this life-giving substance; there is still only one producer, people.

Odds are that someone today is receiving a unit of blood (or a component of blood)* donated yesterday by a Navy person. That 45 minutes a donor spent at a Navy hospital or sickbay is now adding years to the life of a thankful stranger.

He could be a sailor suffering from leukemia—sometimes he needs 10 to 15 units of blood components each day. Or the stranger may be an injured sailor with arterial bleeding—he needs up to 20 units of whole blood immediately or he'll die. Maybe the recipient is not a stranger at all, but the hemophilic child of a shipmate, a "bleeder"—she may use 100 units of blood Factor VIII each day during critical periods.

By way of example—for more than 10 years now, the son of a Navy officer has been receiving treatments for hemophilia. His blood won't clot—even a friendly handshake could cause internal bleeding. Every other day of his life, this teenager is injected with a blood clotting agent, Factor VIII, derived from blood plasma. Though he's had thousands of treatments, normally costing tens of thousands of dollars, his family has not paid a cent. Every unit of Factor VIII was supplied by voluntary contributions from the Navy family via the Navy Blood Program.

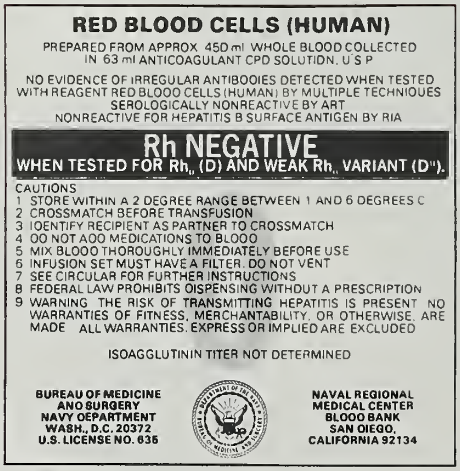
Though you don't always hear about such emergencies, they are always there. A bad accident, a serious burn, a dread disease—unless you are a trained medical professional, the only way you can help is by giving blood. In essence, YOU are the Navy Blood Program.

A worldwide organization, the program has 28 active blood donor centers and blood banks at hospitals in the continental United States, six in the Pacific zone and four in the Atlantic zone. The Navy Blood Program was regionalized in 1972 to ensure that an adequate supply of blood and blood components would be immediately available, regardless of where tragedy strikes.

Under the regional system, the United States is divided into five geographic sectors with a central coordinating office at the Bureau of Medicine and Surgery in Washington.

On the heels of regionalization came licensing this year by the Food and Drug Administration (FDA). "There are several advantages to this," said Lieutenant Commander James F. Bates (MSC), head of the Navy Blood Program Management Branch at BuMed. "First, we are now able to exchange blood and blood components with civilian blood banks and across state lines. Also, by integrating certain aspects of our program with civilian programs, the Navy can help develop one national system with uniform standards of quality and safety."

There are, of course, more obvious advantages. Under the regional concept, if a Navy hospital in Washington State, for example, needs more blood than it can supply, it can ask for help from the regional blood donor center in San Diego. If, by chance, San Diego doesn't have the blood needed, the central coordinating office in Washington, D.C., is contacted. BuMed then locates the blood in another Navy blood region and arranges for its im-



RED BLOOD CELLS (HUMAN)

PREPARED FROM APPROX 450 ml WHOLE BLOOD COLLECTED
IN 63 ml ANTICOAGULANT CPD SOLUTION, U S P

NO EVIDENCE OF IRREGULAR ANTIBODIES DETECTED WHEN TESTED
WITH REAGENT RED BLOOD CELLS (HUMAN) BY MULTIPLE TECHNIQUES
SEROLOGICALLY NONREACTIVE BY ART
NONREACTIVE FOR HEPATITIS B SURFACE ANTIGEN BY RIA

Rh NEGATIVE
WHEN TESTED FOR Rh_o (D) AND WEAK Rh_o VARIANT (D^u).

CAUTIONS
1 STORE WITHIN A 2 DEGREE RANGE BETWEEN 1 AND 6 DEGREES C
2 CROSSMATCH BEFORE TRANSFUSION
3 IDENTIFY RECIPIENT AS PARTNER TO CROSSMATCH
4 DO NOT ADD MEDICATIONS TO BLOOD
5 MIX BLOOD THOROUGHLY IMMEDIATELY BEFORE USE
6 INFUSION SET MUST HAVE A FILTER. DO NOT VENT
7 SEE CIRCULAR FOR FURTHER INSTRUCTIONS
8 FEDERAL LAW PROHIBITS DISPENSING WITHOUT A PRESCRIPTION
9 WARNING THE RISK OF TRANSMITTING HEPATITIS IS PRESENT NO WARRANTIES OF FITNESS, MERCHANTABILITY, OR OTHERWISE, ARE MADE ALL WARRANTIES, EXPRESS OR IMPLIED ARE EXCLUDED

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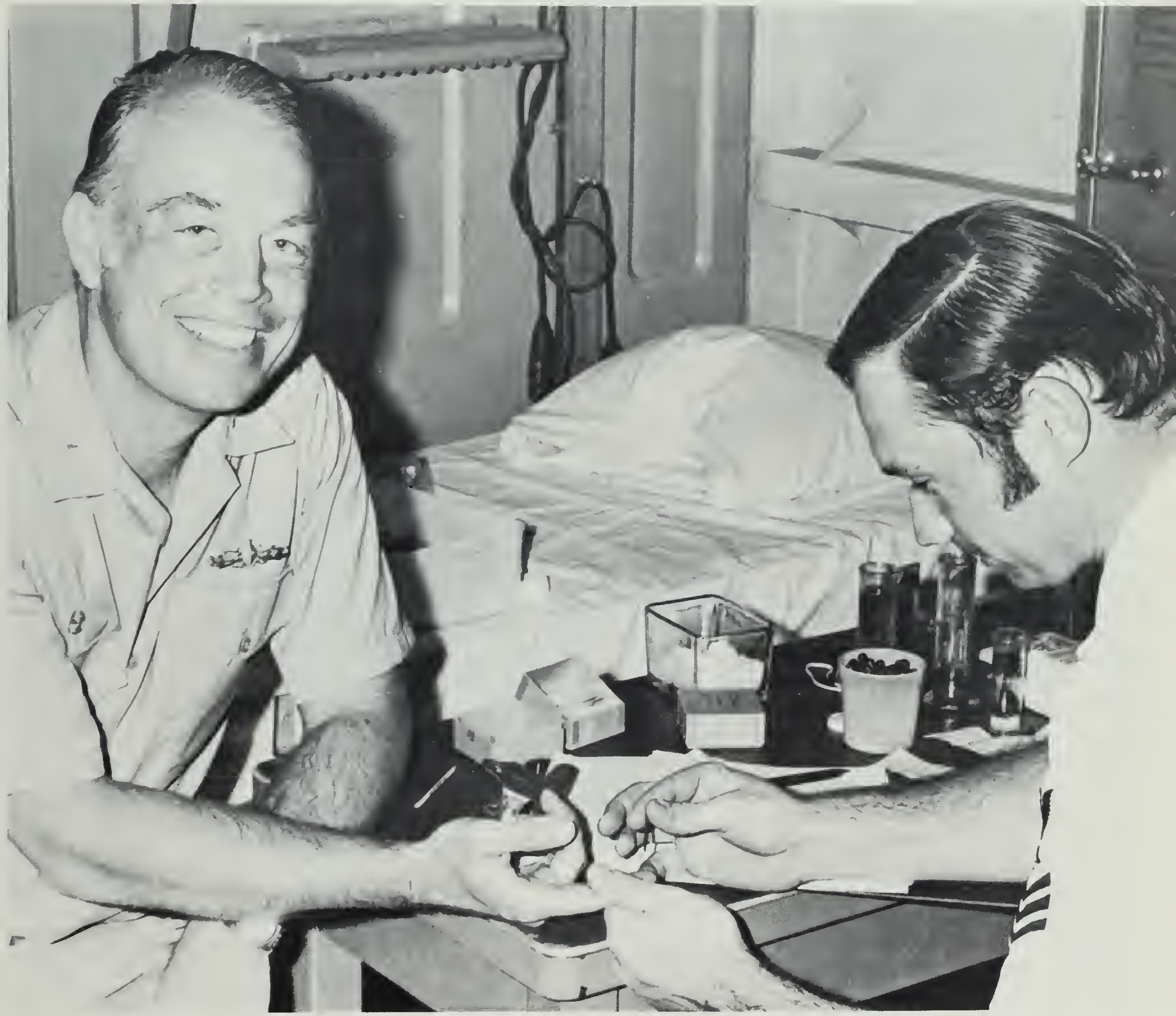
NAVAL REGIONAL
MEDICAL CENTER
BLOOD BANK
SAN DIEGO,
CALIFORNIA 92134

** A unit of whole blood—about a pint—may be separated into as many as four components. Thus, each unit donated may be used to treat four individuals.*



Captain Charles Horne III, undergoes a simple blood screening test administered by Hospital Corpsman 1st Class Frank Marze. All volunteer donors are screened to determine their blood type, group and eligibility to donate.

mediate shipment to the Washington hospital. Surgery has seldom been postponed or cancelled due to lack of blood since the inception of the regionalized system.

"Blood shipments may take two to 12 hours, but to meet extreme emergencies, all Navy hospitals have a list of emergency donors," LCDR Bates said. "These are people who have donated before and expressed a willingness to be included in any call for emergency donations."

The advantage of having such a list is this: hospitals don't have to store large quantities of blood at the risk of spoilage. Instead, they call on emergency donors when a specific type of blood is needed in quantity. The donor thus keeps the blood warm and "alive" until needed.

"Regardless of the need, the Navy-wide system can usually meet it, but it takes time to get the blood to where it is needed," LCDR Bates said. "By having a walking donor population, the need can be immediately met."

Occasionally, when the demand for a specific blood type exceeds a hospital's ability to supply, regionalization becomes a life-saving concept. If a person is bleeding and requires a lot of a certain blood type, the hospital puts out a call to their emergency donors and anyone else who is willing to contribute. This was the case recently at one Navy hospital in Virginia where a patient was using upward of 70 units each day for more than a week.

While the donors were giving blood and the corpsmen typing and processing it, the Navy Blood Program was at work flying in units from all over the country.

Another instance in which a blood bank will ask for blood en masse is before a popular holiday or leave period. "At those times, they need all types of blood since the demand increases, contributions dwindle, and emergency donors may also be away," LCDR Bates said. "We go out and beat the bushes to put some blood on the shelves."

An example of bush beating took place recently in Newport News, Va., when the precommissioning crew of *Mississippi* and local submariners donated 130 units to the Naval Regional Medical Center, Portsmouth, Va. Nearly half of *Mississippi's* crew were donors.

The Navy's blood program was born during the Vietnam War. Previously, the armed forces had received most of their blood from the American Red Cross, though they frequently staged blood drives themselves. In the early 1960s, however, the Department of Defense developed a blood program which paved the way for the develop-

Commander H. W. Nix rests comfortably while giving blood. The entire process takes less than 10 minutes, is quite painless, and results in no ill effects.

ment of blood programs in each service. Throughout the Asian war, the armed forces used more than one million units of blood, none of which came from outside sources.

Since then, the Navy has not only been self-supporting in its blood program, but has led the way in developing techniques to freeze and hold red blood cells. "In 1965, the Navy took the first frozen blood into combat at Naval Support Activity DaNang and in USS *Repose* to determine if it could be used under those conditions," LCDR Bates said. "The concept worked, though the technique used was a bit cumbersome."

Recent innovations in blood packaging and preservation have focused attention on Captain C. Robert Valeri, officer in charge of the Naval Blood Research Laboratory in Boston. CAPT Valeri is investigating methods of freezing red blood cells so they can be safely stored for up to three years. (Red blood cells in liquid form can be stored for only 21 days.) Though not yet able to freeze other cellular blood components effectively, Navy hematologists are investigating new preservation techniques.

Professionals usually think of blood in terms of type or components. The most common blood types are O, A, B, and AB, though there are 14 different blood group systems and approximately 150 blood groups. The rarest blood type is AB negative I/M, but any blood type is "rare" if it's not available when needed.

Blood components include: red cells, the oxygen carriers; white cells, the disease fighters; platelets, the clotting factors; and plasma, the liquid part of blood in which are suspended the various corpuscles. Plasma is generally used as a "blood volume expander" or the Factor VIII is fractionated out and used as a clotting factor.

When an individual donates to the Navy Blood Program, very little of the blood is wasted. Because of the limited number of days which blood can be kept on the shelf without spoilage, Navy ships usually do not carry a blood supply. Instead, at-sea sickbays rely on walking donors to supply blood when needed, which is rarely, outside of a combat zone. Sickbays have the necessary equipment to type and process blood in case of an emergency on board. If a ship needs a type not available through its donor community (every donor is a volunteer, no one is ever forced to give) either the patient is immediately flown off the vessel or blood is flown in from the nearest of the 38 donor centers.

Giving blood is painless and quick—the entire process takes about 45 minutes. Sometimes Navy people are hesitant to volunteer because they don't know what to expect. Here, then, step by step, is what happens:

- You go to a blood donor center—usually a Navy hospital or sickbay—and complete a medical history card. Typical questions asked are: Have you ever had malaria? Do you now have a cold, flu, grippe or sore throat? Are you pregnant now or during the last six weeks?
- Next, you are given a mini-physical. (If the donor is unhealthy, chances are his blood will make the recipient sick.) Weight, temperature and blood pressure are checked, and your finger is pricked to determine if you have enough red cells to safely donate. Both the questionnaire and physical exam results are reviewed by a technician who determines eligibility.
- You are next issued a blood do-

nor bag with your donor number on it and instructed to go to the donor chair or bed.

- Your arm is cleansed and the blood drawn. The entire blood-letting process takes from seven to 10 minutes.
- Once the bag is filled—it holds about a pint—you sit in the donor chair for a few minutes and then go to another room for some nourishment, anything from orange juice to a full meal.
- For the remainder of the day, you may be excused from arduous labor or exercise. Some commands give the afternoon off—this is not a reward for donating blood, but a period for rest and recuperation. If blood is donated in the late afternoon, a good night's sleep is all that is needed before returning to normal activities.

A donor can give blood once every eight weeks, but no more than five times a year. "Those people who donate don't find it to be the horrendous experience they may have imagined at first," LCDR Bates said. "That's why we have so many regular donors."

The President of the United States has proclaimed January National Blood Donor Month—a good time to donate again or for the first time. What's in it for you? Nothing much materially—maybe a half day off or a free meal. That doesn't compare to the real reward: knowing that you, without a doubt, helped save the life of a fellow human being.

Think about it, that's quite a lot. ⚓

Technicians from a local blood donor center begin the complex processing of donated whole blood into blood components aboard a destroyer tender.

HSL-31... The 'Archangels' of Search and Rescue

Located across San Diego Bay at the North Island Naval Air Station, Light Helicopter Squadron 31 (HSL 31) trains fleet pilots, aircrewmen and maintenance people in SH-2 *Seasprite* operations and maintenance. More than 1,600 Navy men and women were trained in 1976 alone.

The *Seasprite* is a twin-engine helicopter capable of 150 knots and is used for both search and rescue and antisubmarine warfare.

Aviation Structural Mechanic 1st Class Larry Brignone is an instructor at HSL 31. "My basic responsibility is to teach aviation hydraulicsmen and metalsmiths the SH–2 aircraft. I teach them all the flight controls, landing gears, structural parts and rotor systems of the aircraft," he said.

His instruction comprises three weeks of the eight-week maintenance course. For those three weeks, students receive practical "hands-on" job training with the helicopter.

HSL 31 is nicknamed the "Archangels" because of its work in search and rescue.

Aviation Structural Mechanic 3rd Class Arlen Bowen, an aircrewman, recalls one rescue involving a foreign pilot. "We had a lot of trouble getting the downed pilot into our *Seasprite* because he wouldn't sink his raft—a basic rule—and we were blowing him all over the place with our rotor wash. It took real skill by the aircrew to wrap the cable up and put it right over the downed pilot." Bowen is also an

AN Kimberly Warnock inspects the hydraulic system of an SH–2 Seasprite *helicopter.*

instructor at HSL 31, teaching about 30 students each month how to be good aircrewmen.

Hospital Corpsman 2nd Class Lynn Wofford teaches swimming and first aid. "My job is to instruct search and rescue lifesaving tactics. This usually involves jumping from a helo into the water to rescue downed pilots," he said.

His course lasts one month. "During that month," he explained, "we have about four hours of physical fitness, running and swimming every morning. In the afternoons we have first aid and ground school lectures in which we teach safety equipment common to all aircraft, signaling devices, flotation devices and hand signals."

To be graduated from this course, students must pass written exams on first aid and ground school, complete a 440-yard swim in under 15 minutes, a 1,000-meter swim (with fins and mask) in 30 minutes and a 2,000-meter swim (nautical mile) in 55 minutes. Then, they must run a six-mile course.

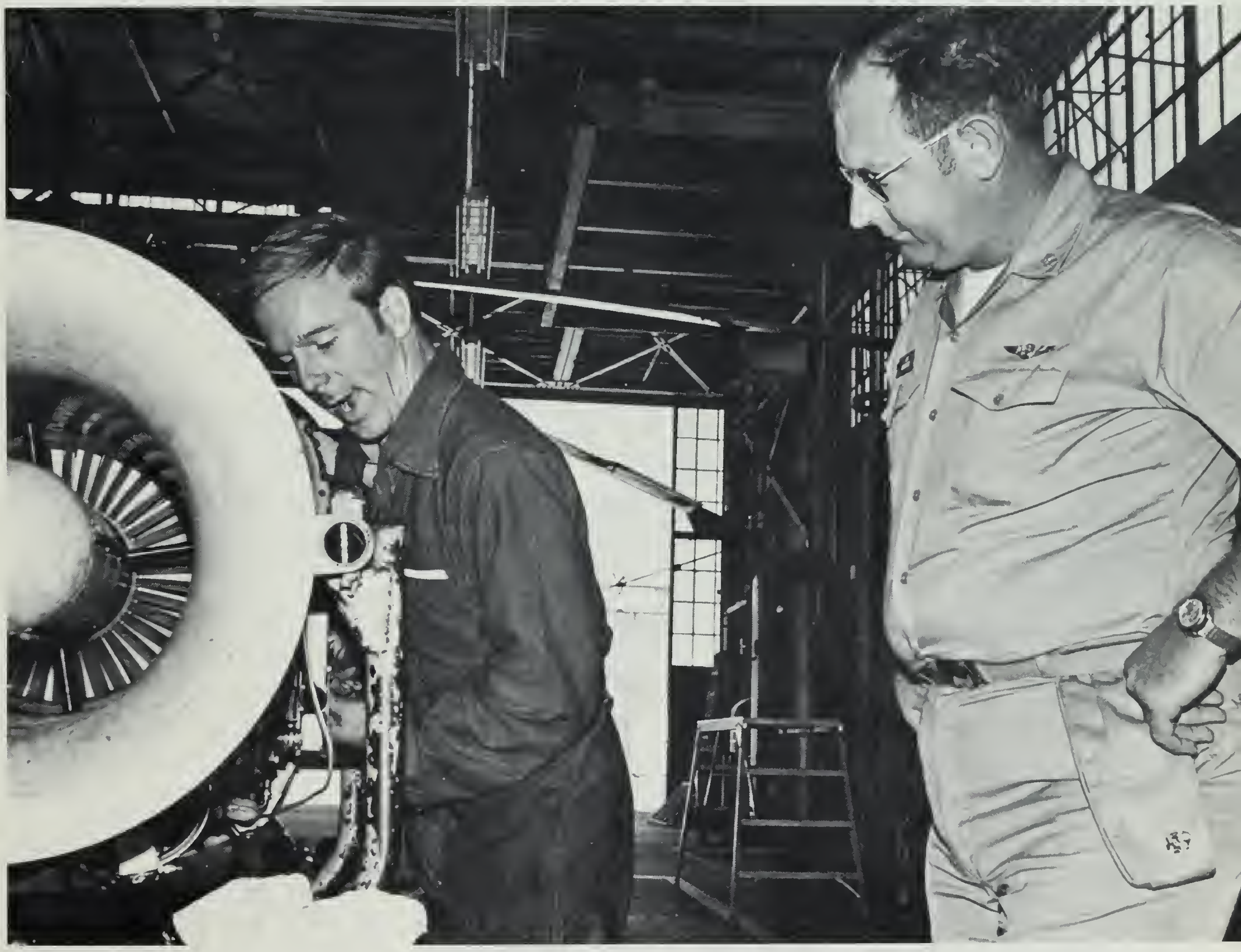
"There's no time limit on the six-mile run," said Wofford. "You just have to stay up with the instructor who is leading."

Aircrew Survival Equipmentman 3rd Class Mike Ferrulli feels directly responsible for the lives of all aviators in the squadron. "When an aviator goes down over water or land, he relies on my knowledge and equipment for survival," he said. Ferrulli is a graduate parachute rigger from the "A" school at Lakehurst, N.J.

While *Seasprites* continue to rescue downed pilots with swiftness, they also are a significant extension of a Navy combatant ship's antisubmarine (ASW) warfare capabilities. This extension is called LAMPS (an acronym for light airborne multipurpose system), and integrates Navy cruisers, destroyers and frigates with helo operations.

The *Seasprite* extends a ship's surveillance capability over the horizon to more than 170 miles and enhances the ship's ability to deliver antisubmarine warfare weapons. Each helo is manned by a crew of three—the pilot, co-pilot

AMS3 Michael Stingone inspects the rotor system of an SH-2 Seasprite.



and aircrewman. The pilot, or aircraft commander, has overall responsibility, his co-pilot—the tactical officer—helps maintain the aircraft, while the aircrewman aids in rescues or operates the antisubmarine warfare devices.

"I'm in charge of tactics training for ASW operators," said Aviation Antisubmarine Warfare Technician 1st Class Terry McFeeters. "It's enjoyable working with the various pieces of equipment on the *Seasprite,*" he added.

"You also get a variety of missions. One time you go out and perform an ASW mission. The next time you might be involved in a search and rescue operation. That's what makes HSL 31 exciting for me," McFeeters explained.

ADC Charles Molkentine supervises the repair of a Seasprite. *"There are many hard-to-get-at systems," he says.*

HSL 31 averages 10 *Seasprite* flights per day, each lasting about two and one-half hours. In the last four years, the squadron has not had a single accident—a real tribute to its personnel and training effectiveness.

Compiled from stories by JO2 Scott Day, photos by PH2 Claudie Bob Johnson II and PH2 Bob Weissleder.

Call on Whidbey Island, Anytime

STORY AND PHOTO BY
PH1 JOHN BOROVOY

Their garb may be flight suits and their steed, a helicopter, but when these Whidbey Island sailors come swooping down to the rescue, they could just as well be wearing shining armor and riding a charging stallion, at least as far as the rescued are concerned.

They are the NAS Whidbey Island Search and Rescue (SAR) Team. Their primary function is picking up pilots following in-flight emergencies. Luckily for area residents, those emergencies are uncommon.

Most times the flight crews lend their expertise and assistance to the community in emergencies. Those emergencies range from rescuing a climber injured on a mountain top to transporting a premature baby to a better-equipped hospital.

A SAR helicopter is manned by the pilot, co-pilot, crewchief and crewmember. A corpsman or nurse goes along to give on-the-scene medical treatment and aid if necessary.

Whidbey Island maintains three CH-46D and one HH-46A helicopters for SAR purposes.

During weekdays, they can be off on a mission within five minutes; on weekends, within a half hour. They can remain airborne about 3.5 hours depending upon the altitude maintained during the mission. At altitudes higher than 6,000 feet, as might occur on a mountain rescue, the flight time is shortened considerably.

Usually only one or two of the helicopters are in an "up" status while the others undergo routine maintenance. However, in the December 1975 flood which struck the area, all four crews and helos were in action. For three days the SAR crews rescued residents from the rising waters, responding literally to hundreds of calls for help.

Normally, SAR crews average a rescue every 72 hours—a good indication of the hard work involved in keeping the helicopters operating. The mechanics who keep Whidbey Island's helos up are a vital but little-recognized part of the team.

"In the 54 missions I've been on," said SAR crewmember AMS2 Robert G. Nowak, "not once did we have a downed helo because of mechanical malfunction. Those mechanics deserve a lot of recognition."

Northwest Washington State is a haven for campers, hikers, boaters and fishermen but is also noted for its sudden mountain storms, cold water temperatures, and maze-like trails. Residents and visitors can relax and enjoy themselves knowing that, should they need it, help is on the way ⚓

Bearings

Japan's Ancient Mariners

When Commodore Matthew C. Perry came ashore in the Orient over 125 years ago, the Japanese were amazed at the many wonders he brought with him.

One of those "wonders" has been revived recently and is delighting audiences throughout Japan—a fife and drum corps from the Naval Base, Yokosuka.

The Ancient Mariners of Japan Fife and Drum Corps was formed for an Independence Day 1976 performance. They were so well received that the group, now numbering 24 players and 11 behind-the-scene members, decided to keep together.

They have given more than 100 performances for U. S. military, civilians and Japanese nationals, adding a touch of America to such events as the opening of the new American Embassy in Tokyo, a Christmas party in Seoul for orphans and various parades.

The group is styled after Commodore Perry's fife and drum corps. A roll of drums and trill of fifes brings the Ancient Mariners onto the stage in red-and-white-striped shirts, mid-calf length white trousers and brimmed hats.

"We create quite a stir in many Japanese audiences," said Chief Warrant Officer Jim B. Kidd, director of the Ancient Mariners. "To Americans, the sounds of fifes and drums arouse patriotism and remembrance of our heritage," he continued. "But to the Japanese we're a curiosity."

Just a few of the many songs in their repertoire include "Marching Through Georgia," "When Johnny Comes Marching Home," and "The Battle Hymn of the Republic."

"We were in for a bit of a shock at first," said Kidd. "The Japanese were familiar with these traditional American tunes through American movies and had added their own words. Many don't even realize that the songs are American. It's not ununual for an audience member to ask us why we play their school songs."

Bearings

Just Like Home

Over the past 30 years, the Italian Sports Federation has kept abreast of trends in world sports by introducing "new" games such as softball, basketball and volleyball to Italy's sports fans.

Recently, their Federation decided to offer something a bit more innovative, or as they put it, an initiative unprecedented in its history—American football.

But how do you introduce an entire nation to a sport? Where in the soccer-oriented population of Italy are you going to find men for these teams or even a field on which to play football? And how about cheerleaders, half-time show and other touches that make the game so popular in the United States?

The Sports Federation turned to the U.S. Navy, Army and Air Force bases in Italy for help. It was their hope that through three exhibition games by four U.S. military teams they could present the sport as it should be played.

Sailors, soldiers, marines and airmen from various NATO commands in Naples joined the Navy team. Army team members came from Camp Darby, near Pisa, and the Air Force put together two teams from Aviano Air Base.

Each team was assigned to one of four major sports newspapers in Italy who, in turn, gave their teams a name—the Navy team was dubbed the "Milan Devils." The papers ran sports stories on the event, plugging their own teams and creating friendly rivalry.

Perhaps the scope of the project can be better understood when one learns that the stadium selected as the most likely site for the games—a soccer stadium with appropriate re-markings (meters to yards) in Marina di Massa—could hold up to 25,000 spectators. In addition, the television broadcasts of the games over Italy's state-owned RAI TV would reach a potential audience of nearly 10 million people.

Story By JO2 Ron Pulliam.
Photos By JO2 Pulliam and PH2 Dennis Sherod.

Decade of Excellence

Just as the Packers once dominated football and UCLA once dominated college basketball, so is USS *Chicago* (CG 11) now dominating competition for missile readiness. *Chicago* has won the Missile "E" for the 10th consecutive time for the year ending last June. Captain John L. Beck, left, commanding officer, and Gunner's Mate (Missiles) 1st Class John L. Martin, T-2 Division, apply the final touches to the fifth hashmark, symbolic of this latest award.

On the Receiving End

An Air Force man whose work involves calling in medical evacuation units during emergencies recently found himself on the receiving end of emergency medical treatment—aboard a U.S. Navy ship, no less.

Airman 1st Class Michael Kittredge of the 1605th Air Base Wing at Lajes Air Force Base, Azores, was participating in a sports scuba diving class when disaster struck. Practicing free ascent from 30 feet down, Kittredge removed the air regulator from his mouth and began surfacing. But his trip was too rapid and he was struck with an air embolism—expanding air bubbles and cutting off blood circulation.

Luckily his problem was quickly recognized by the class instructor and help in the form of a medevac plane from Ramstein Air Force Base, Germany, was summoned. Enter the U.S. Navy.

The medevac unit, with flight surgeon aboard, headed towards U.S. Naval Station Rota, Spain, and homeport of USS *Canopus* (AS 34). Kittredge was critically in need of the services of the nearest decompression chamber—in this case *Canopus*—if there was to be any chance of saving his life.

After X-rays at the Naval Station hospital, Kittredge was rushed to *Canopus'* decompression chamber. Eight Canopus divers and Doctor (LCDR) Paul A. Tibbits, Submarine Squadron Sixteen medical officer, watched over the ailing airman as he was recompressed and then decompressed to rid his bloodstream of the potentially deadly air bubbles.

After six hours of treatment Kittredge was returned to the hospital for treatment of a partially collapsed lung.

"Due to the quick recognition and response of the Navy and Air Force team involved, he's alive today," Dr. Tibbits said. Airman Kittredge knows this: "If it wasn't for them I never would have made it," he said.

Interim Role for F–14

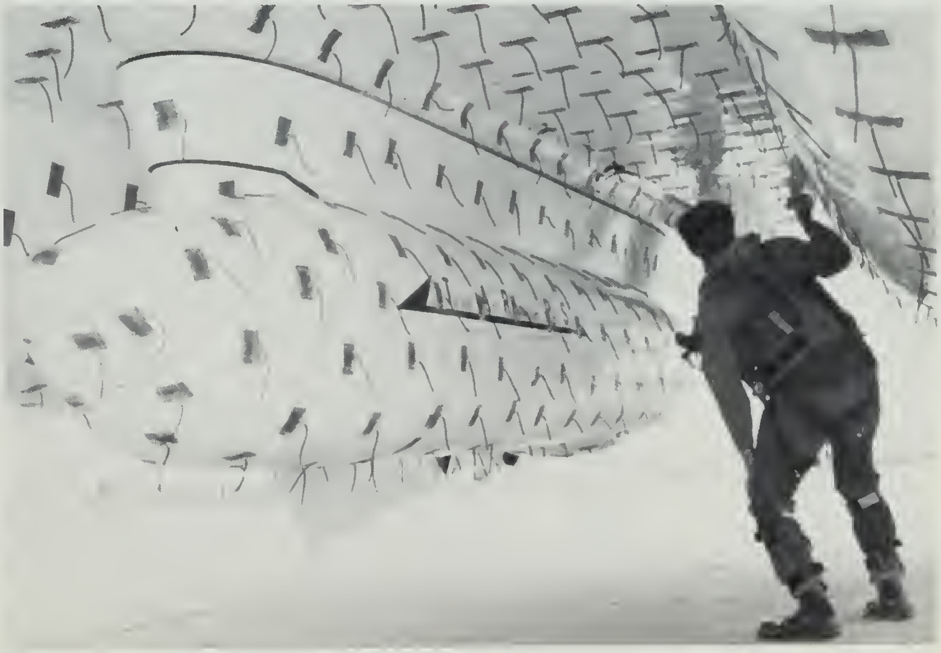
The Navy's most potent fighter, the F–14 "Tomcat," is being considered for an additional role—that of a supersonic photo reconnaissance aircraft. This will help fill the gap between the phasing out of aging RF–8G "Crusaders" and RA–5C "Vigilantes"—now performing tactical photo missions—and the development of new photo aircraft.

The Naval Air Training Center (NATC) at Patuxent River, Md., is in phase one of a seven-part development, test, and evaluation program with the F–14/TARPS (Tactical Air Reconnaissance Pod System). The system is designed to be mounted approximately 15 inches off the centerline of the "Tomcat's" belly in the tunnel created by the two engine nacelles.

NATC is not only evaluating how well the pod stands up to the shake and rattle world of the high-performance fighter, but how well the cameras within the pod (traditionally mounted inside the plane) are able to operate in such a strenuous environment.

The 1,550-pound pod consists of four main compartments. In the nose is a KS87B frame camera which can film forward or down; the second compartment contains the KA99, a new, low-altitude, horizon-to-horizon panoramic camera—due to undergo a separate evaluation. Both the AAD–5 and RS–720 infrared systems, located in compartment three, will be evaluated for night reconnaissance. In the fourth compartment is a ground check station containing a maintenance panel and a sensor control data display set.

Later this year a modified "Tomcat" will be tested for the first time with a fully operational TARPS and subsequently sent to Point Mugu, Calif., for more extensive modification by Grumman Aircraft Corp. representatives.



The Tactical Air Reconnaissance Pod System attached to the underside of an F–14 at Pax River. Tufts have been attached so a chase plane can photograph the airflow around the 17-foot long pod.

Bearings

MARCH OF DIMES

Representing thousands of handicapped children, 1978 March of Dimes Poster Child Denise Nankivell, 5, of Elizabethville, Pa., called on Chief of Naval Operations Admiral James L. Holloway III in Washington. The March of Dimes works to prevent birth defects and depends heavily on funds raised during its annual drive.

Last Service Record

Nearly 900,000 Navy personnel records containing more than 80 million documents have been converted to michrofiche to replace the paper system designed in 1948.

Wayne Shelton, President of Information Sciences Company of the Planning Research Corp., presented the last enlisted service record and its corresponding microfiche to Chief of Naval Personnel Vice Admiral James Watkins and Master Chief Petty Officer of the Navy Robert J. Walker in December.

The last record, belonging to Gunner's Mate Guns Seaman Leonard Zywick, ended the system modernization which was started in 1971.

January is alien registration month. For additional information, see "Currents," this issue.

30 ships, 130 aircraft, 20,000 men, all involving 100 different commands—big hardly describes Fortress Lightning.

Fortress Lightning

Fortress Lightning

When more than 30 U.S. Navy ships carrying almost 20,000 sailors and Marines converge on a small island in the Western Pacific, you know something big is going to happen.

When nearly 100 Navy and Marine Corps commands in the Pacific plan an amphibious exercise, something big grows even bigger.

And when 135 military aircraft enter the scene, Navy Reservists arrive to augment staffs, and the operational order reaches more than 1,000 pages, you know that big is no longer an adequate description of what is in the offing.

These elements and more recently combined to form the largest amphibious exercise conducted in the Western Pacific in recent years—Fortress Lightning.

The 13-day exercise was conducted in the South China and Philippine Seas with an amphibious assault landing conducted in the vicinity of Santa Cruz, Mindoro Island. Involving troops, aircraft and warships, the exercise began with the assembly of ships in Buckner Bay, Okinawa, while aggressor forces set up defenses on the west coast of Mindoro.

The amphibious task force sailed rough narrow seas where "enemy" aircraft, submarines and surface raiders "attacked." During this war-at-sea phase of the exercise, participants were tested in anti-air and anti-submarine warfare tactics.

The assault on Mindoro began in the pre-dawn hours when underwater demolition teams, clad in swim gear and laden with explosive charges, slipped ashore. The teams conducted reconnaissance and strategically placed simulated explosive charges along some 1,900 meters of beach to remove obstacles threatening the amphibious assault landing.

As H-Hour—the time of the initial assault—approached, the tension aboard the waiting ships mounted. In the well decks of amphibious ships, landing craft were packed with fully-equipped combat Marines. As the sun rose, the same scene was repeated on ship after ship standing off Mindoro.

Suddenly, wave after wave of landing craft roared out of well decks into the sea.

Like a mother hen herding her chicks, guide boats lined up the amphibious craft and turned them toward the beach, three miles away.

With precise timing, a number of other events suddenly began happening. Cruisers and destroyers of Rear Admiral William Rowden's Task Force

15

75 simulated pounding of the landing beaches and the near shore with gunfire.

Fighter and bomber aircraft sweep over the same ground simulating delivery of their deadly loads. Then the first assault vehicles hit the beach and helicopters touch down on the high ground five miles inland.

Navy Beachmasters, combat Marines, landing vehicles, tanks, tractors and bulldozers were first ashore.

More troops, supplies and heavy equipment followed, and aircraft—on simulated bombing missions—streaked inland as the forces on the sea united in a concentrated effort and swept out the aggressors.

Following the exercise, units of Marines and Navymen worked together in the most extensive civic action program ever undertaken in the area.

Working closely with local authorities, school rooms and medical facilities were constructed or repaired and refurbished, more than 40 pallets of "Project Handclasp" materials were distributed to needy civilians, and more than 11,000 Mindoro inhabitants received some form of medical or dental treatment.

With the exercise a success and two days of backloading operations to retrieve men and material completed, troops, ships and aircraft departed. They left the west coast of Mindoro island to calm waves, coconut trees and quiet inhabitants. Which is just how they'd found this island before "something big happened."—*Story by JOC Milt Harris, JOC Jesse Jose. Photos by PHC Ken George, JOC Jose.*

John Paul Jones

His Final Voyage

BY JO2 DAVIDA MATTHEWS

When John Paul Jones died in France in 1792, he was nearly penniless. His uniforms and most of his belongings, including a gold medal presented to him by Congress, were auctioned off—the proceeds thought to be used to pay the final bill for his room and board. If a French official had not intervened at the time, Jones' remains would have been buried in a pauper's grave by order of the U.S. Ambassador to France, Gouveneur Morris.

It is just and fitting that the recovery and return of John Paul Jones to America over a century later would come through the efforts of another ambassador, General Horace Porter.

Porter, grandson of Revolutionary War officer Andrew Porter, was a West Point graduate and served as aide-de-camp to General Ulysses S. Grant from 1864 to 1865. Later, he was awarded the Medal of Honor for gallantry at Chicamauga. After the Civil War, he continued as military secretary to President Grant.

In 1897, he was selected as the U.S. Ambassador to France and served in that position until 1905.

Porter was an avid historian. Certain papers existed that not only listed the circumstances surrounding Jones' death but also described how his body was prepared for burial.

Ambassador Morris had given orders that Jones be buried as cheaply as possible. There was no personal animosity between them—Morris just didn't want to shoulder the cost of Jones' burial. In his final years, Jones had become somewhat of a nuisance to the minister who wrote, ". . . (Jones) has nothing to say but is so kind as to bestow on me all the hours which hang heavy in his hands."

Colonel Samual Blackden, a friend of Jones, and Pierre-Francois Simonneau, Commissioner of the Paris section in which Jones had died, were indignant. This disrespect to the memory of a man of Jones' caliber could not be allowed.

Simonneau paid for the funeral expenses to ensure it was done properly. Jones' remains were prepared more for transport rather than burial since Simonneau felt sure that the U.S. would claim the body of her hero. His body was partly wrapped in tinfoil and placed in an alcohol-filled lead casket packed with straw.

Jones had never attended church but was considered Protestant since he had been brought up in the Church of Scotland. This fact would make the recovery of the corpse easier at a later date. There was only one Protestant cemetery in Paris and Jones was buried there until such time as the U.S. claimed the body.

At the time of Jones' death, rebellion

His Final Voyage

was sweeping across France. A mob attacked the royal palace and hundreds of Swiss guards were killed trying to protect the King and Queen.

The guards' bodies were tumbled into a common grave adjoining Jones' plot. Soon afterwards, the cemetery was closed.

As time went by, the city overgrew

the small cemetery and buildings were constructed over the site.

Over a century later, in 1899, Porter began his search, directing it personally in his free time and at his own expense.

It took nearly five years. Porter was hindered at every step by red tape and dishonest researchers but finally he located the graveyard beneath a structure.

He received authorization to start digging in 1905 and encountered more difficulties immediately. The tunnels dug out beneath the building filled with water. The Swiss guards' bones, which one source described as ". . . stacked like cordwood," made the task of finding the body both grisly and seemingly hopeless.

Facing page top: American sailors, part of the group sent from Cherbourg, salute the remains of John Paul Jones, outside the American Church of Holy Trinity in Paris. Bottom: Transfer of John Paul Jones from a French torpedo boat to USS Brooklyn. *Below: Draped with an American flag, the body awaits voyage to the U.S.*

Occasionally, a lead coffin would be uncovered and opened, but none of them contained remains prepared as described in Porter's references.

On April 7, 1905, another lead coffin was found. This one, unlike the others, had no markings—an encouraging sign since Jones' casket was recorded as being unmarked.

The coffin was opened. Porter swiftly checked it against his records—the casket contained alcohol, the limbs of the unclad body were partly covered with tinfoil, and the straw packing was present.

Porter was convinced that he had located Jones' remains, but the tedious job of proving beyond a doubt that the body was indeed that of John Paul Jones still remained.

Experts were called in to conduct the identification investigation.

Because of Simonneau's foresight, the corpse was nearly perfectly preserved, enabling them to take measurements and match them with measurements known to be correct, such as his height.

An autopsy was performed to establish approximate age and cause of death. Fact after fact began to emerge until the evidence became overwhelming. The body Porter's search had uncovered was John Paul Jones.

Throughout the investigation, interest had been mounting in America. Arrangements were made to return the body to the U.S.

For the second time, the naval hero's remains were prepared for his final voyage to America.

President Theodore Roosevelt ordered four cruisers to Cherbourg, France, to bring John Paul Jones home—USS *Brooklyn*, USS *Tacoma*, USS *Chattanooga*, and USS *Galveston*, a squadron under the flag of Rear Admiral Charles D. Sigsbee.

Sigsbee was somewhat of a minor national hero himself. As a young ensign just out of Annapolis, he had taken part in the battle of Mobile Bay and both attacks on Fort Fisher during the Civil War. Sigsbee received his notoriety as the commanding officer of the USS *Maine* when it exploded in Havana Harbor. Later he received international recognition as a scientist and inventor—his concepts on deep-sea sounding and dredging revolutionized the operations.

In sending Sigsbee to command the

His Final Voyage

squadron, the U.S. was honoring Jones by sending their best.

Also aboard USS *Brooklyn* was a young apprentice boy, David Jones.

Chief Yeoman David Jones, USN(Ret)—he says he was teased unmercifully for his name—is now 90 years old and a retired minister living in Arizona.

He has nearly total recall of those early years in the Navy. Through him we can get a first-hand, eye-witness account of Jones' passage to America.

"The *Brooklyn* was a three-piper coaler that had made quite a name for herself during the Spanish-American War," Jones relates.

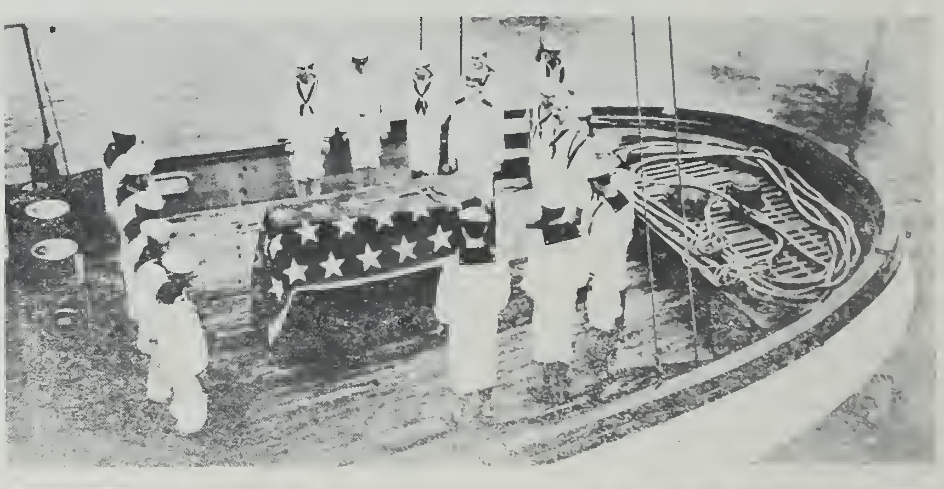
"Most of the crew were taken up to Paris to march in a parade in Jones' honor but we (apprentice boys) were left behind to do the dirty work—coal the ship."

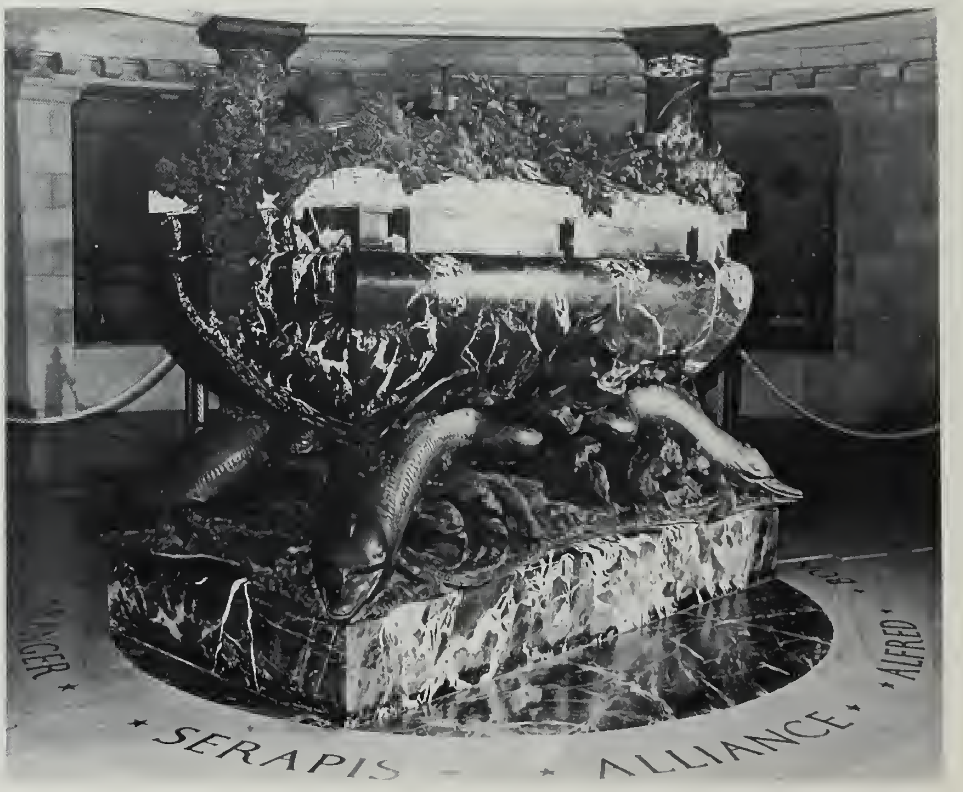
After services in Paris, the body was moved by a special train to Cherbourg. A French torpedo boat completed the transfer of the coffin to the *Brooklyn* where young David Jones waited for his first glimpse.

"I have never seen so many flags—big ones, little ones, French, American—all fluttering in the breeze. It was quite a sight," Jones commented.

"We had been working night and day to get the ship ready. Everything from the decks to the brightwork was covered with fine coal dust that was the devil to get off. It was a relief to finally get him (John Paul Jones' body) on board and get underway."

The thirteen-day voyage to America





Top: Retired Chief Yeoman David Jones was aboard Brooklyn *for Jones' final voyage (photo by Jack Moore). Middle: The casket, with honor guard, aboard USS* Standish *for transfer to Naval Academy. Bottom: Remains now rest inside a sarcophagus at Academy chapel (facing page).*

was uneventful but Chief Jones recalled his thoughts. "I remember thinking that the old boy wouldn't have been too pleased with the weather. It was so calm that the water was like glass. There wasn't the slightest breeze that could fill his sails.

"His casket was draped with a flag and an around-the-clock honor guard stood by. When we arrived off Nantucket shoals, we were joined by seven battleships— the *Maine, Missouri, Kentucky, Kearsarge, Alabama, Illinois* and *Massachusetts*. With the ten ships accompanying us, we entered Chesapeake Bay.

"The first four battleships pulled away then, each firing a 15-gun salute as they past the *Brooklyn*. The rest continued on to Annapolis.

"We anchored off Annapolis the 22d of July. There was quite a crowd to meet us, both on shore and in small craft in the bay. The honor guard took the coffin aboard a torpedo boat (USS *Standish*) and headed for shore. It was a very solemn occasion and I felt proud to have played a part, small as it was, in bringing Jones home."

The casket was placed in a temporary vault until arrangements could be made for permanent interment.

On April 24, 1906, 114 years after his death, John Paul Jones received the honors due him. President Roosevelt, General Porter, French ambassadors and some 12,000 others came to pay their respects to one of America's greatest naval heroes.

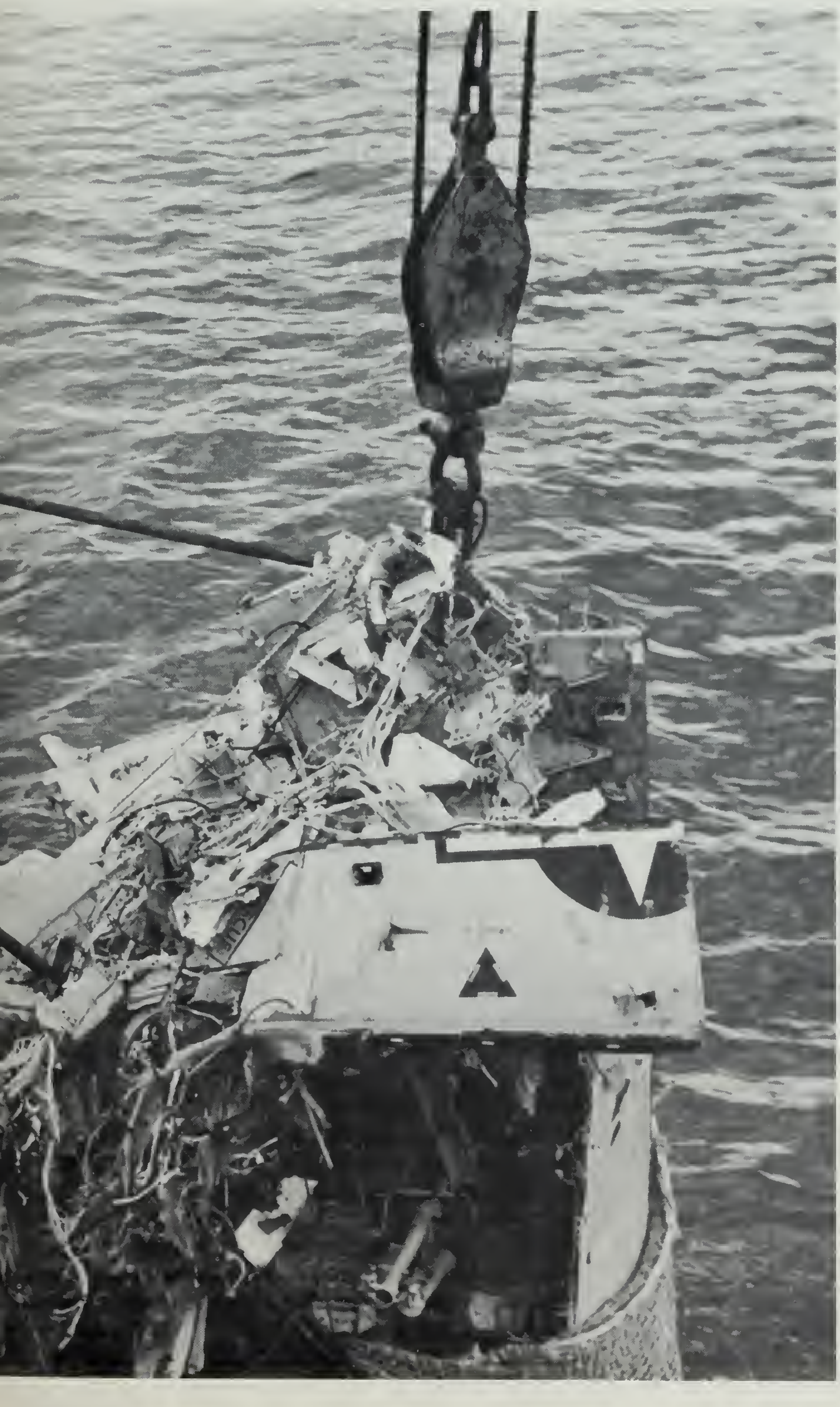
Congress offered to reimburse General Porter for the $35,000 he had spent to find the body, but Porter refused. Instead, he insisted that the sum be added to an appropriation by Congress to build a crypt for the remains.

A marble sarcophagus, carved by Sylvain Salieres, was completed in 1912, and Jones' body was moved to its permanent location in the Academy chapel.

An inscription in the marble floor in front of the sarcophagus sums up John Paul Jones' contribution to the Navy. "He gave our Navy its earliest traditions of heroism and victory."

At last, America had paid her debt to John Paul Jones. ⚓

Service Squadron Eight



A Jewel of a Team

BY JO3 MICHAEL I. SCHANZER

Men and machines in Service Squadron Eight (ServRon 8) of the Atlantic Fleet's Naval Surface Force are similar to a fine diamond—both are multifaceted and they're valuable.

Their complex mission involves diving, salvage, towing, fleet maintenance and repair. These missions are handled by five salvage ships, five fleet ocean tugs, and a salvage and repair ship. Sometimes, these vessels are assisted by Harbor Clearance Unit Two (HCU 2), also a ServRon 8 component.

Among numerous towing and salvage operations undertaken last year were the 4,886-mile tow of the torn and scarred USS *Belknap* (CG 26), and the 45-day search for USS *John F. Kennedy's* (CV 67) F–14A *Tomcat* lost from her flight deck off Scotland.

During the *Belknap* operation, USS *Hoist* (ARS 40) stopped to secure her tow for high winds and heavy seas before leaving Rota on January 3, 1977. Twenty-seven days and four storms la-

Hard work paid off for Service Squadron Eight with the recovery of the lost F–14 from the carrier USS John F. Kennedy (CV 67).

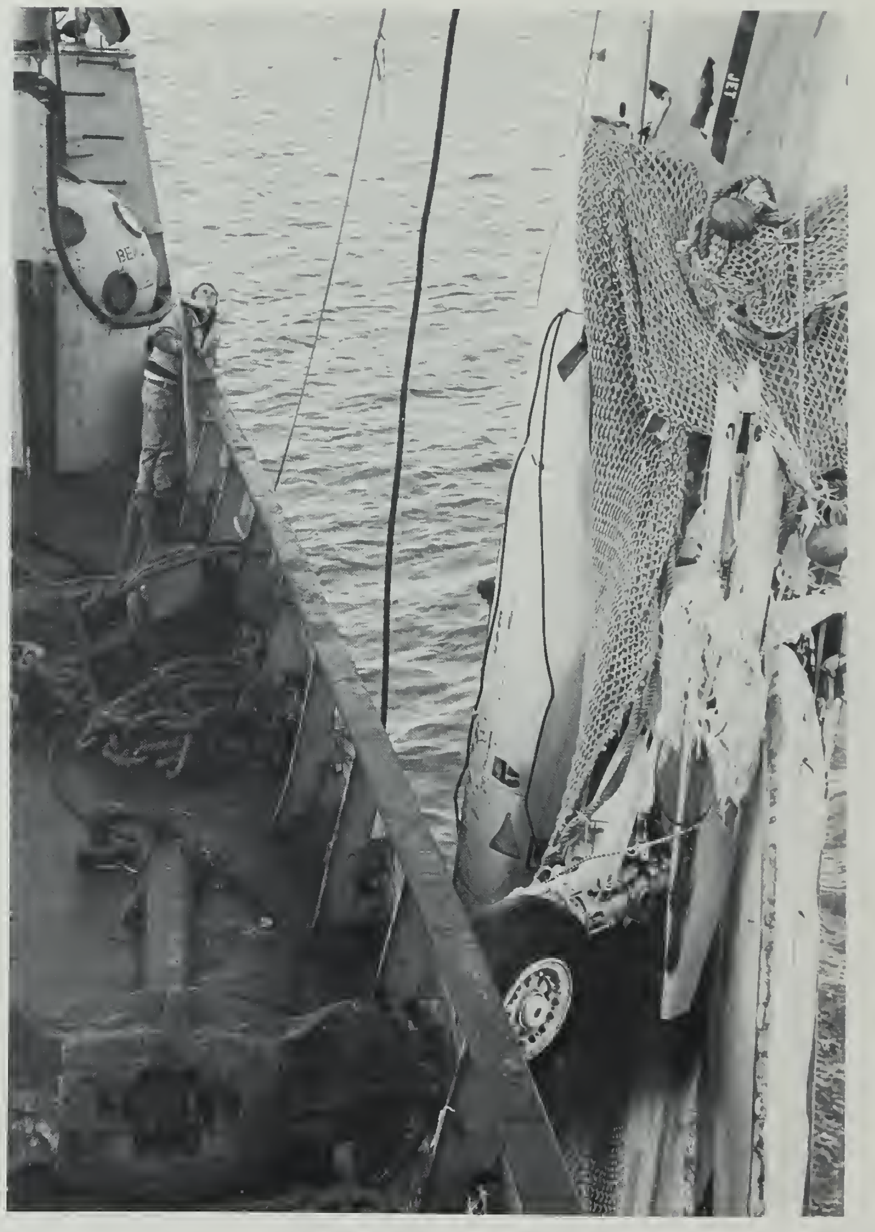
ter, *Hoist* released *Belknap* to Navy tugs at the mouth of the Delaware Bay. Foul weather also hampered the search and rescue operations for the F–14A. Heavy seas put added strain on towing/lift lines and cables. High winds, salt spray and frigid temperatures made working conditions arduous, sometimes unbearable.

USS *Shakori* (ATF 162) spent eight days searching before locating the F–14A in more than 300 fathoms. Finding it, though, was only part of the problem. "No one on the scene had ever recovered anything from that great a depth," said Captain James H. Lytle, Commander ServRon 8, "so there was a learning curve involved. There is never a casebook solution to any salvage or recovery operation."

After several futile attempts to raise the *Tomcat,* heavy weather forced *Shakori* to suspend recovery operations. Later, she returned to the scene accompanied by the nuclear research submarine NR–1 and several civilian salvage ships. On November 11, the wayward F–14A was hoisted aboard the West German heavy lift ship M/V *Taurus.*

Most of ServRon 8's work is not so dramatic. Normal operations usually consist of unglamorous tasks like towing target vehicles—such as stricken and ready-for-scrap Navy ships—for fleet gunnery exercises and missile shoots. The squadron also searches for lost anchors and chains.

Tasked with keeping harbors and navigable waters clear for United States and Allied shipping, Harbor Clearance Unit Two (HCU 2) performs several roles vital to squadron operations. The unit runs the Second Class Diver's School for the Atlantic Fleet Naval Surface Force and coordinates refresher training programs in salvage and rescue operations for all squadron units. The unit has a "SWAT TRUCK" in its inventory which is maintained and fully equipped for basic rescue/recovery operations.



The F–14 is raised to the surface after a six-week effort.

Fleet maintenance and repair aspects of the squadron are easily overlooked. Still, these are as important as any other operation and are essential to the maintenance of fleet readiness for deployed units. This, especially since the Navy readopted the practice of rotating tenders to the Mediterranean.

"Tenders that have been there (the Med) so far have returned to the forward base role, making repairs as needed, wherever they're needed," CAPT Lytle said. In one case the tender did a complete generator change on a ship. Back in the states, the ship would have had to go into the yards.

Shakori rests pierside after recovery of F–14 Tomcat *from 300 fathoms in the North Atlantic.*

"This seems to prove that tenders are capable of much larger and more complex jobs than they've been tasked with in the past."

In another example cited by the squadron commodore, a ship's damaged boiler was repaired by transferring ServRon 8 experts to the ship while underway. All repairs were made without delay, including necessary certification and testing that a shipyard in the U.S. would perform on a similar operation.

"Not only are the tenders doing their jobs on our destroyers and destroyer-type ships, but on any and all types of ships," CAPT Lytle said. "Both United States and allied naval forces know if they need expert repair or assistance, we are the local source for it.

"I feel that Service Squadron Eight has as fine a group of professional and dedicated personnel as can be found anywhere in the Navy today," CAPT Lytle said. "I'm proud of them and, more important, I know they're proud of themselves." ⚓

Sea Cadets—a learning experience

BY GINNY SIEGFRIED

Naval Sea Cadets from the Nation's Capital visited the Norfolk area this past summer and got a "taste of the real Navy"—living in barracks, eating in the mess hall and experiencing day-to-day operations.

Commanded by Sea Cadet Lieutenant Commander Daniel P. Rodriguez, the Dahlgren Division toured Little Creek Amphibious Base, Norfolk Naval Station and Oceana Naval Air Station.

This learning experience is just a part of the U.S. Naval Sea Cadet Corps (NSCC) Program sponsored by the Navy League. More than 7,000 high school students are participating in over 150 units across the nation.

This program is providing young people the opportunity to take part in worthwhile activities in their spare time, and develop, as well, a sense of pride in themselves and their country. Entirely voluntary—with no obligation to serve in the armed forces later—the program teaches 14- through 17-year-olds basic seamanship.

To qualify for entry to the program the cadets must first pass a qualifying physical exam similar to that given Navy enlistees. Then, they attend a two-week "boot camp," in which they learn the rudiments of naval discipline.

After the mini boot camp, qualified cadets are eligible for two weeks of training at naval facilities. Male cadets, when qualified, can take part in mini summer cruises aboard active and reserve ships of the Atlantic and Pacific fleets.

The young men wear Navy bell-bottom uniforms and the young women wear the Navy enlisted women's uniforms, with NSCC insignia.

If the Sea Cadets do decide to enlist in the Navy after high school, they

Cadets await critical eye of Rear Adm. Ralph W. Carnahan.

may be enlisted in pay grade E2 or E3—if they meet the requirements. Because of their experience and training, they also have a leg up on others when competing for entrance to the Naval Academy or being accepted for NROTC.

Naval Sea Cadet officers—adult leaders—are nominated for NSCC officer appointments by the Sea Cadet Committee chairman of their local Navy League Council. These officers, all volunteers, are a critical element of the program. They normally have no military status in the regular armed forces—LCDR Rodriguez, however, happens to be a lieutenant (j.g.) in the Navy Nurse Corps—nor do they receive pay as Sea Cadet officers. The officers are approved by the Navy League's National Sea Cadet chairman after a special background inquiry has been completed.

"This program is a way for the Navy man and woman to share part of their professional lives with those who are trying to decide what to do with their futures," said Rodriguez.

Washington's Dahlgren Division has almost 80 cadets and officers. Some activities include marching in parades, working as ushers at Navy Band concerts and participating in other public functions.

At their annual personnel inspection last summer, Rear Admiral Ralph W. Carnahan, Commandant Naval District Washington, D.C., rated them 4.0 and commended the cadets and officers for their "magnificent showing."

Their leader, LCDR Rodriguez said, "The Naval Sea Cadet Corps is an adventure in learning which helps build and develop a sense of patriotism, courage, self-reliance and confidence. Today, I have found, there are very few things which offer that challenge to young people." ⚓

Sea Cadets stand personnel inspection at a Navy boot camp.

Mail Buoy

Sinking of Ward

SIR: I have seen a number of references to the fact that USS *Ward* fired the first shot of World War II and that subsequently she went down in the Western Pacific. There are some interesting coincidences in the sinking of the *Ward*:

Site of sinking: Western approaches to Ormoc Bay, Leyte.
Action involved: Amphibious landing at Ormoc City.
Sunk by: Gunfire from USS *O'Brien*.
Reason for sinking: Severe damage from suicide attacks.
Date of Sinking: Dec. 7, 1944.

CO of USS *O'Brien*: Commander W. W. Outerbridge, USN, who, as your piece in the October issue noted, was the skipper of the *Ward* on Dec. 7, 1941.

I was there at the time as main battery control officer of USS *Walke* then and engaged in the sinking of the USS *Mahan* whose crew had abandoned ship following hits from three suicide planes.—A. T. McKinney, CDR, USN(Ret)

USS Hawkins

SIR: That certainly is a fine picture of USS *Hawkins* taking "white water" on the inside cover of your December, 1977 issue. If my tired old destroyerman's eyes are correct, however, the caption may be misleading. Here's why.

Instead of the familiar ASROC and DASH hangar of the FRAM conversion, I see the height finder and TACAN of the earlier DDR conversion. My deduction therefore is that the picture is of DDR 873, and the picture is probably at least 15 years old, and was not taken on *Hawkins'* seventeenth deployment.

It is still a fine picture of an evolution that makes every destroyerman's pulse quicken.—H. W. Kinsley, Jr., CDR, USN

• *Although our cutline may have misled some, Cdr. Kinsley's sharp eyes give us an opportunity to set the record straight. The photo is, indeed, at least 15 years old. It's actually more than 17 years old and once again demonstrates that good photographs never outlive their usefulness.*—ED.

Matter of Gender

SIR: In "For the Navy Buff" (October 1977), there was an inquiry about the use of pronouns for ships; apparently the ship's company of the USS *Piedmont* effects the practice of calling her a him!

This is a matter of grammatical gender which is largely ignored in the teaching of English, because it almost never comes up in everyday speech, except among sailors. Consider, however, the following examples of seamanlike usage: "She's an East Indiaman," or "She's a man-of-war," or "She's a Frenchman," or "The fisherman has just shot her nets," or "The *Iron Duke* hoisted her colours," and "*King George V* held her course."

On the other hand, if you say: "*Gracie Fields* has changed his mind," it means that the captain of HM Minesweeper *Gracie Fields* has reconsidered his plans. By the way, *Gracie Fields* was sunk in the Dunkirk evacuation.—Philip Chaplin, LT, RCNR(Ret)

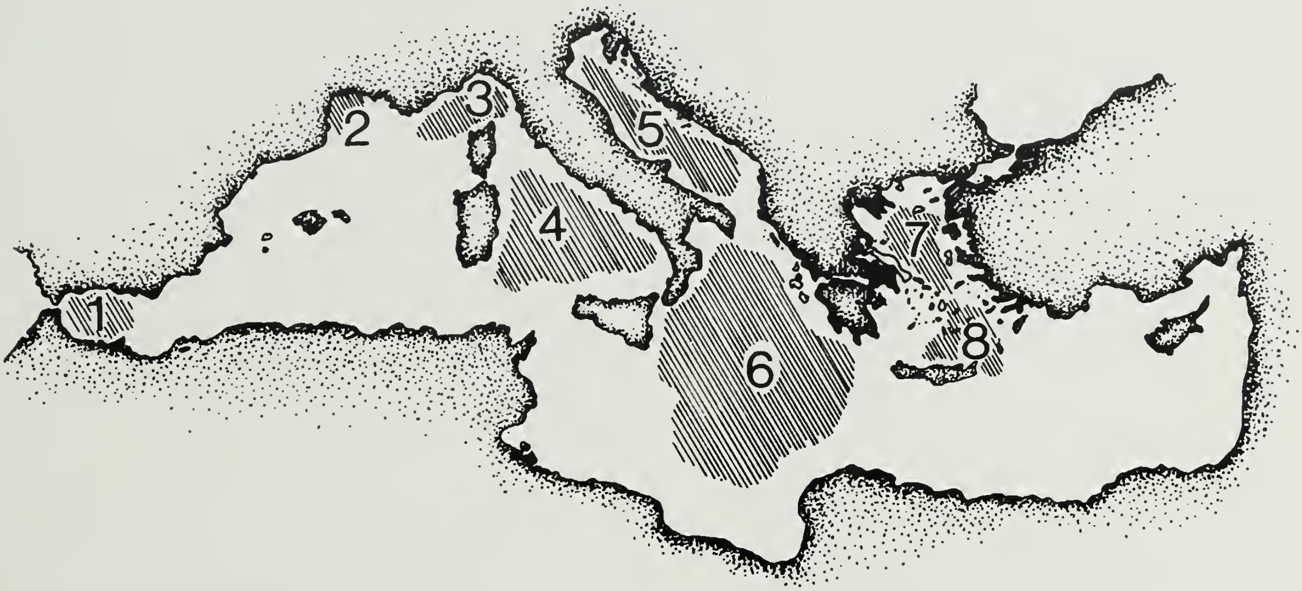
Reunions

- USS *Harding* (DD 625/DM 528)—Reunion May 27-28 in California. Contact G. T. Watson, Box 13A, McDaniel, Md. 21647.
- USS *Litchfield County* (LST 901)—Planning reunion for crewmembers serving from Nov. 30, 1951 to Dec. 1955. Contact James A. Woollett, 2681 Halverson Road, Cloquet, Minn. 55720.
- USS *Stone County* (LST 1141)—Planning 1978 reunion in California. Contact E. H. Sallee, 1318 W. Church St., Bowling Green, Mo. 63334.
- USS *Oklahoma Association*—Reunion May 2 in Charleston, S.C. Contact Clarence Knight, 7831 Aberdeen Road, Bethesda, Md. 20014.
- USS *Arcadia* (AD 23)—Reunion April 28-30 in Newport, R.I. Contact Walter McFarland, 23 Laura Street, Tiverton, R.I. 02878 or Leonard Tourigny, 13 Champlin Terrace, Middletown, R.I. 02840.
- USS *Laffey* (DD 459) (DD 724)—To join USS Laffey Assoc. contact Robert H. Daugherty, Brooke Mobile Court, Lot 16, R.D. 1, Wellsburg, W. Va. 26070.
- *Navy Mail Service*—Sixth reunion Aug. 16–20 in Nashville, Tenn. Contact Guy Pribble, 428 N. Chicago Ave., Brazil, Ind. 47834.
- *301st Naval Construction Battalion*/Seabees who served at CBC Davisville, R. I., during January and February 1945—planning a reunion. Contact William R. Walters, Sr., P.O. Box 24, Arpin, Wis. 84401.
- *Navy Helicopter Association*—29th Annual convention in May at San Diego. Contact K. R. McCarty, Navy Helicopter Association, Helicopter Anti-Submarine Squadron Light THIRTY-FIVE, Naval Air Station, North Island, San Diego, Calif. 92135.
- USS *Los Angeles* (CA 135)—Planning a reunion for 1979 in San Francisco Bay Area. Trying to update locator. Contact Lyman A. Harris, 1107 2nd Ave. #613, Redwood City, Calif. 94063.

Stern Shots

How many times do you find yourself referring to an atlas when you're reading about ship operations or exercises? You soon find out that there is more to the world's oceans than the seven seas you learned about in geography class. Fact is, many bodies of water are hiding in larger seas. This quiz will challenge you PacFlt sailors more than the Med deployers, as you try to identify these areas of the Mediterranean.

A. Adriatic Sea
B. Aegean Sea
C. Alboran Basin
D. Gulf of Lions
E. Ionian Sea
F. Ligurian Sea
G. Sea of Crete
H. Tyrrhenian Sea



Answers: 1-C; 2-D; 3-F; 4-H; 5-A; 6-E; 7-B; 8-G.

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ALL HANDS

FEBRUARY 1978

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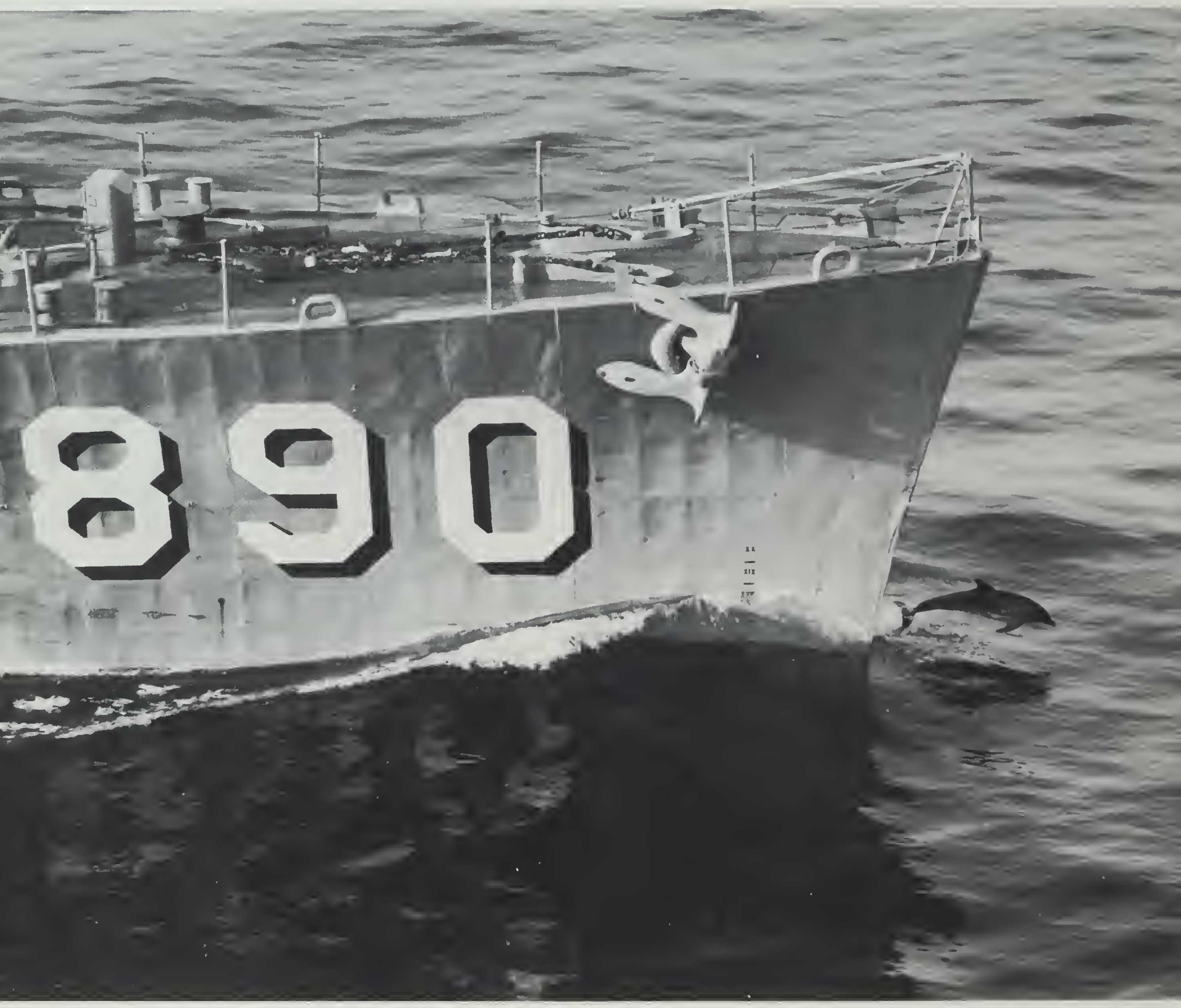

Destroyer Escort—A dolphin leads the way for USS Meredith *(DD 890) off Puerto Rico, during Operation Computex last year. Photo by PH1 Terry C. Mitchell.*

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ALL HANDS

MAGAZINE OF THE U. S. NAVY — 55th YEAR OF PUBLICATION
FEBRUARY 1978 NUMBER 733

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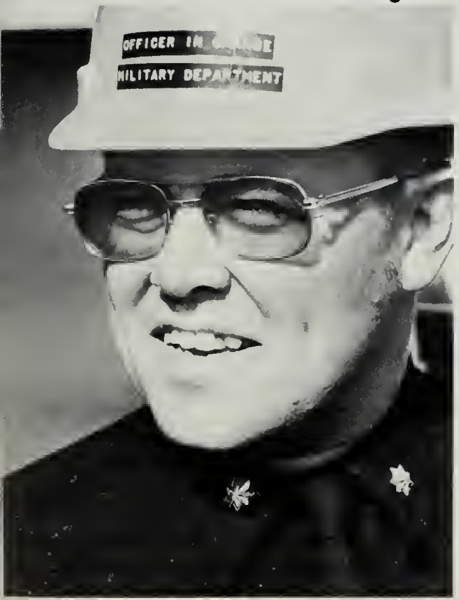

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Covers

Front: Commander Ira H. Coen, Jr., has the conn aboard the nuclear-powered attack submarine *USS Hawkbill* (SSN 666) off Hawaii. Photo by LT Franklin D. Peele.

Back: Mrs. Dolph Briscoe, wife of the Governor of Texas, christens the nuclear-powered guided missile cruiser *USS Texas* (CGN 39). See page 4. Photo by PHAN William F. Flynn.

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Currents

Electronic Technicians Needed for Surface Nuclear Program ● The Navy is looking for petty officer grade electronic technicians (ETs) who want to serve as reactor operators aboard nuclear-powered surface ships. The ETs are needed for the Navy's projected expansion of the surface nuclear fleet, especially in *Virginia* and *California* class cruisers. Interested ETs must have four to eight years of service, proven performance as technicians and demonstrated leadership ability. Applicants accepted for the program will get one year of nuclear-power training and then serve as reactor operators aboard nuclear-powered surface ships. Graduates will be required to serve a minimum of three years at sea after they complete the training. Nuclear trained personnel currently receive significant financial incentives, including the maximum amount authorized for shortage specialty (proficiency) pay and the maximum allowed for reenlistment bonuses. The nuclear propulsion program also offers a unique opportunity for theoretical and practical training in nuclear reactor physics and reactor control electronics. Applications should be submitted via the commanding officer to the Chief of Naval Personnel (Pers 5N). Further details are in BuPersNote 1520 of Dec. 3, 1977.

California, Hawaii Residents to Have State Tax Withheld ● California and Hawaii are the latest additions to the growing list of states that have asked the Defense Department to withhold state income taxes from the paychecks of their military residents. In California, the tax will be withheld only while military people who are California residents are stationed in that state. The withholding program started Dec. 1 for Hawaii and Feb. 1 for California. These additions bring to 29 the number of states participating in the state income tax withholding program.

First Quarter FY 78 Recruiting Results Announced ● The Navy Recruiting Command attained 91 percent of its One-Navy enlisted programs goals for the first quarter of FY 78. Eighty-one percent of the 17,859 active duty, non-prior service, men and women recruited were high school graduates and 88 percent were eligible to attend Navy Class "A" School. The One-Navy recruiting goal for FY 78 is 94,735.

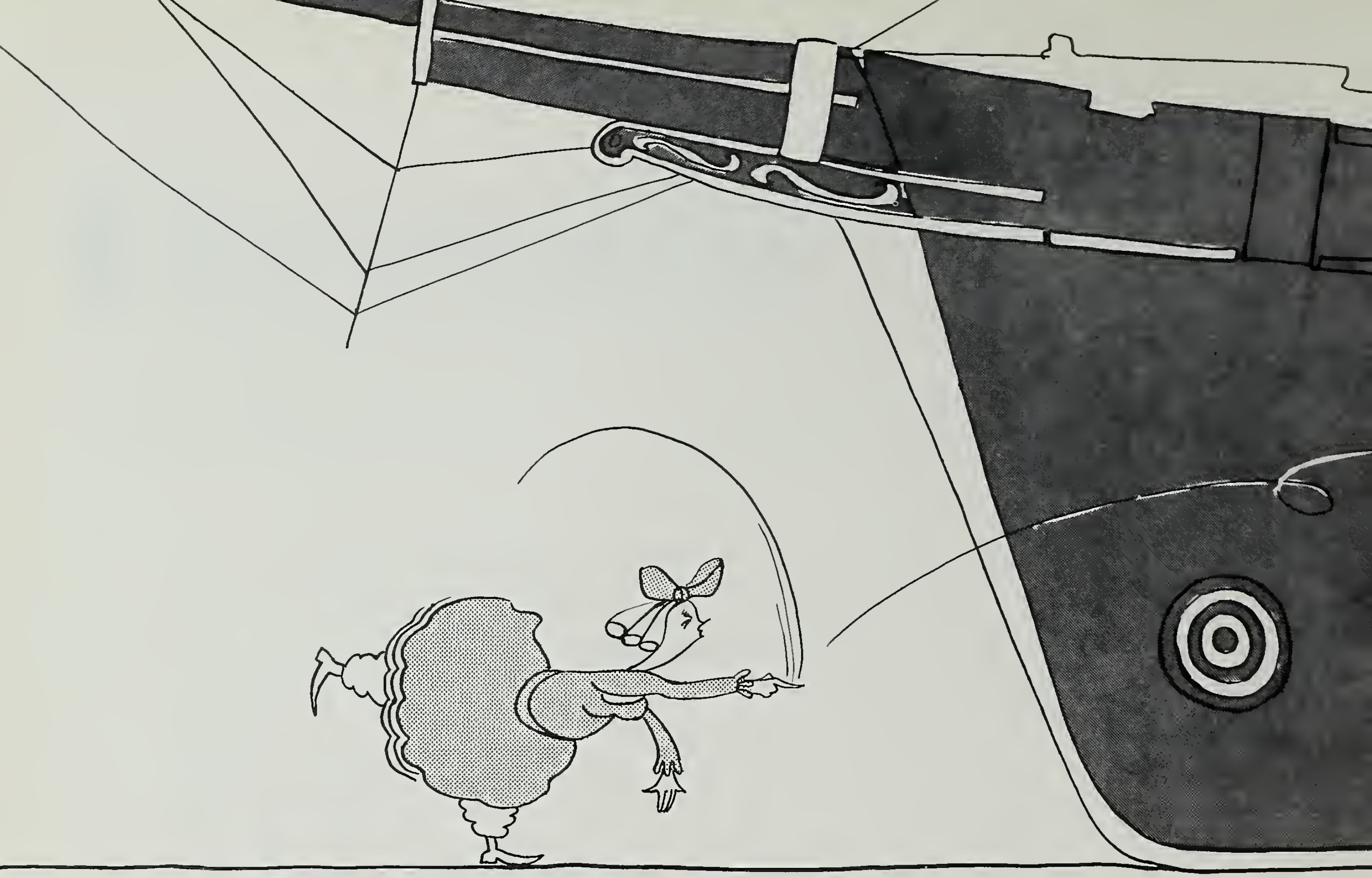
Navy Relief Society Offers Loans for Education ● Interest free loans to aid dependent children of Navy and Marine Corps servicemen in obtaining a college education or vocational training are available through the Navy Relief Society. Total school loan limit is $6,000 with a maximum yearly loan limit of $1,500. Approval of loans is based on the student's need as determined by family size and income. Applications for 1978-79 school year loans may be obtained by writing Navy Relief Society, Room 1228, 801 N. Randolph Street, Arlington, Va. 22203. Deadline for requesting applications is March 15.

LANTFLT Ships Make Africa/South America Deployment ● Three U.S. Atlantic Fleet ships manned by 1,555 Navy men and Marines currently are visiting several West African countries, two South American cities and two Caribbean ports during a 10-week training deployment to the South Atlantic. USS *Inchon* (LPH 12), USS *Spruance* (DD 963) and USS *Valdez* (FF 1096) began the deployment Jan. 16 when they departed the United States for Africa. In addition to independent and task group training operations, the U.S. ships also may participate in small-scale combined exercises with some host military units. The task group is scheduled to return stateside in early April.

Navy Prepared If Sea Duty for Women is Approved ● The Bureau of Naval Personnel has developed a plan to assign women to certain non-combatant ships permanently, and temporarily to any ship not expected to be engaged in combat. This would be contingent upon Congressional approval of a Navy proposed amendment to the federal law. The plan calls for women to fill from a minimum of 25 percent, up to a maximum of 50 percent of the billets on certain ships designated for permanent duty for women. Initially, however, the minimum percentage will be somewhat lower than 25 percent. This results from a shortage of enlisted women in skills not traditionally performed by women in the past, the small number of senior women petty officers, and the need for women officers to acquire sea experience prior to assignment to top leadership positions like department head. Ship types on which women will be eligible to serve for permanent duty are: destroyer tenders, submarine tenders, the training aircraft carrier, oceanographic vessels, fleet tugs and rescue ships. All ship types could be considered for temporary additional duty assignments.

U.S. Ships Aid Burning Freighter ● U.S. Navy units of the Sixth Fleet last month rescued 43 persons from an Indian freighter burning 30 miles southeast of Sicily. The freighter had been spotted by an S-3 aircraft on routine patrol from the aircraft carrier USS *Nimitz* (CVN 68). Within an hour of the sighting, USS *South Carolina* (CGN 37) and USS *Bigelow* (DD 942) were at the scene rendering assistance and evacuating the crew from the ship. All major fires were brought under control in about 12 hours. During the rescue effort an SH-3H helicopter from *Nimitz* crashed. All four crewmembers were rescued. Thirty-two of the survivors of the freighter fire were taken to Augusta Bay, Sicily, while the other 11, including the ship's master and first mate, were returned to the freighter. USS *Richard L. Page* (FFG 5) remained at the scene until a commercial tug arrived to tow the freighter to port.

Navy To Investigate Acoustic Phenomena ● The Defense Department has requested that the Navy conduct an investigation of recent incidents of unexplained acoustic phenomena off the East Coast of the United States. The mysterious atmospheric explosions have been recorded by scientists at Columbia University's Lamont-Doherty Geophysical Observatory and the Weston Seismic Network. The investigation, headed by the Chief of Naval Research, will be conducted primarily by the Naval Research Laboratory in coordination with federal and private agencies. A final report on the Navy's investigation is due early next month.



Blood, Wine & Water

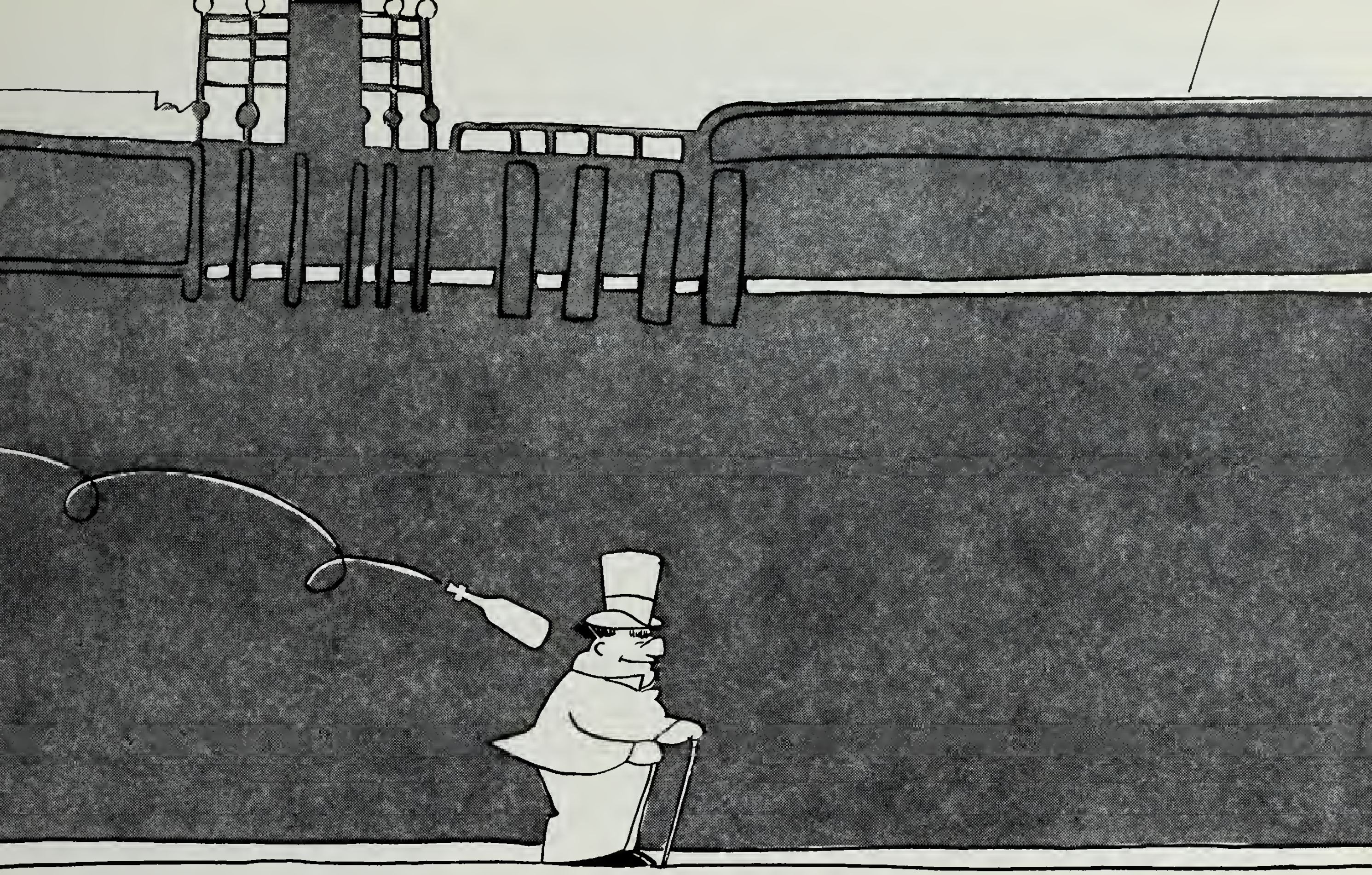
BY ED JOHNSON

"Sailors belong on ships and ships belong at sea" chimes the Old Navy adage, but, even way back then, each of those ships was christened.

Though seagoing vessels have changed over the ages, the care given each christening has not. To this day, many believe that anyone who violates a launching ritual, places a curse on a new ship. Each ship must be properly blessed in order to be protected.

Amid fanfare, speeches, and benedictions, every 20th century Navy ship is christened and formally receives her name as she sits ready to enter the water. The woman designated as ship's sponsor performs the christening rite which begins, "I christen thee . . . in the name of the United States of America." The sponsor then draws back the net-encased bottle, usually champagne, and smashes it against the bow.

Properly christened, the newly named vessel slips down the greased shipways, her bunting and streamers



whipping in the wind. Protocol having been observed, another ship will sail without a curse.

Though ship launching ceremonies have been standardized for the most part regardless of location or type of ship, centuries ago the protocol depended on the country where the launching took place and the attitude toward each country's particular deity.

Sometimes, however, common sense prevailed and ceremonies were changed as the need for change was perceived. For example, after a mishap occurred in a 19th century launching in England, a seemingly insignificant but permanent alteration was made—the christening bottle was secured by a lanyard to the ship's stem. This change was instituted when a sponsor—whose eyesight was none too keen to begin with (according to witnesses)—swung the unsecured bottle toward the bow and, in her excitement, missed. The bottle slipped from her hands and crowned one unfortunate commoner.

If the incident is considered from a ceremonial perspective—rather than from a legal perspective since a suit resulted—the injured spectator could have made out worse, especially if he had been present at a christening in the South Pacific. The South Sea islanders had a custom which called for the sacrifice of at least one human—who was never of royal blood—for each ship launched. The islanders were convinced that when human blood was spilled the ship received a living spirit and earned close association with protective deities. If human blood didn't wash the ship before it entered the water, the gods unleashed their unrelenting fury and the vessel's days were numbered.

The ancient Norsemen believed that when a ship was launched, a human sacrifice was just too important to be ignored. Though separated by oceans and culture, tides and time, the Norsemen and South Pacific islanders shared the custom of "roller-reddening."

Captain James Cook witnessed several roller-reddenings in the 18th century and reported on them to the crown. It seems that several sacrificial humans, usually slaves, were lashed to the shipways between the ship and the sea. When the ship was blessed and released, the rollers bearing the ship's weight, started forward. The offerings were immediately crushed and their blood drenched the ship and shipways. Successfully launched according to tradition, the ship was assured a long and useful life.

Eventually, as seafaring communities became more humane—or sacrificial humans less available—the launching ceremony was modified so that wine replaced blood. The Greeks are believed to have been one of the first to substitute wine for blood and even today just before a Greek ship enters the water for the first time, her captain—observing the ancient ritual—raises a container of wine to his lips, takes a sip and pours the remainder over the deck.

The Greeks were also one of the first to begin blessing a new ship with water. Like the Romans of later days, they believed that water was a symbol of purification—an appeasement to the gods to ensure a safe ship.

(→)

The United States has at various times used both water and wine to christen ships. The choice depended largely on public sentiment toward temperance. Still, there are Bostonians who will, to this day, swear that wine is the only christening liquid that can do the job right because the first attempt to launch the USS *Constitution* in 1797 in Boston was unsuccessful. The customary bottle of water was broken across her bow and nothing happened—the ship didn't budge. A second bottle of water smashed squarely on her bow produced the same result. *Constitution* remained on her ways. On the third try, wine was substituted and Old Ironsides slid gracefully into the drink.

In reporting on the ceremony, a visiting rear admiral, George Preble, wrote: "Commodore James Sever stood at the heel of the bowsprit and, according to time-honored usage, baptized the ship with a bottle of choice old Madeira from the cellar of the Honorable Thomas Russell, a leading Boston merchant." When water wouldn't do, wine always triumphed.

The first iron-hulled ship built in the United States, USS *Michigan,* also seemed to have a will of her own and was somewhat reluctant to slide down the ways—and she was christened with wine! After the bottle had been broken and her name given, *Michigan* began moving toward the water. However, she stuck on the ways. Shipyard workers, most of whom had helped build the vessel, scrambled about attempting to solve the problem. No luck.

Embarrassed, they admitted to officials that no rational explanation could be offered, though they believed it was an ill omen for all iron-hulled ships. As nightfall approached, both spectators and workmen departed and went home.

When workers returned the following morning, *Michigan* was not on her ways. During the night, without anyone watching, she had successfully launched herself without the benefit of either water or wine. She served sucessfully in spite of it—so much for the mythical powers and superstitions associated with wine and water.

The Women's Christian Temperance Union of the late 1800s and early 1900s aimed to ensure that nothing stronger than water would ever again be used to christen an American ship. For several decades that was the case, until 1898 when the new battleship *Kentucky* was scheduled to be launched at Newport News, Va.

The Kentucky chapter of the WCTU recommended that spring water taken from the Blue Grass state be used to christen the new battlewagon, and shipyard officials accepted their recommendation. On March 24, when the words "I christen thee Kentucky" rang out, a cut-glass bottle of pure spring water was smashed across her hull by the Kentucky governor's daughter.

The ship started down the ways into the James River. Many spectators, however, were native sons of Kentucky and considered a bottle of spring water to be something less than adequate to christen a first class fighting ship, especially one named for a state more famous for its bourbon than its spring water.

When those disheartened Kentuckians heard the sponsor's words and saw water "defile" THEIR ship, they opened their travelling bags and . . . well, a local newspaper account written at the time tells it better:

> ". . . the air was darkened by a fusillade of bottles of all shapes and sizes, and the poor little trickle of spring water was engulfed in the cataract of good old Kentucky whiskey which rushed down the ship's side . . . ."

With the coming of Prohibition, wine was seldom used to christen U.S. ships (and bourbon was never used again!). Mrs. Herbert Hoover had the honor three times and never used spirits once. On the first, *President Hoover,* she smashed a bottle of water gathered from the seven seas by the Dollar Line; the second was christened with water collected from eight South American rivers; and the third, the USS *Ranger* (CV-4), was baptized with a bottle of grape juice in 1933. It was enough to make a Norseman or Kentuckian shudder.

From roller-reddening to grape juice, from blood to wine, the launching ceremony has come a long way—and not such a long way at all. Changes have been made but superstitions die hard and no effort is too great if it might prevent disaster on the high seas.

No longer do pagans beseech the blessings of their gods, but still a blessing is sought. Often it comes from the 107th Psalm in the King James Bible: "They that go down to the sea in ships that do business in great waters; these see the works of the Lord and the wonders of the deep . . ." A proper christening ensures that "they" will return to tell about them.

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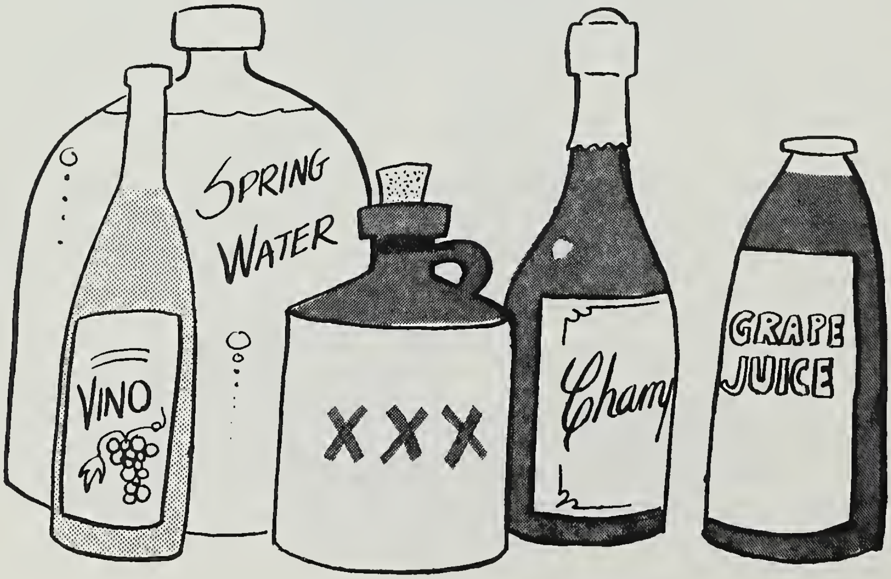

The Great Gilt Cup

BY ED JOHNSON

By the early part of the 17th century, England had instituted her own special way of launching ships, replete with significant ceremony. As described in 1610 by Phineas Pette, a master shipwright of King James I, a secular launching ceremony was conducted by:

> "*. . . the noble Prince Henry himself, accompanied with the Lord Admiral and the great lords, were on the poop where the standing great gilt cup was ready filled with wine to name the ship so soon as she had been afloat. . . . His Highness (after concluding the ceremony of drinking in the standard cup) threw all the wine forwards towards the half-deck, and solemnly calling her by the name of the PRINCE ROYAL, the trumpets sounding all the while . . . .*"

Immediately thereafter, Prince Henry presented the standing cup, the wine goblet, to Phineas Pette as a souvenir of the launching.

Later in the 17th century, however, it became the custom to toss the goblet over the side rather than give it to the shipwright. As soon as the cup hit the water, spectators—some of whom had stripped naked in their enthusiasm—dived for the great gilt cup, hoping to sell it back to the shipwright for several pounds.

Though the contest drew large crowds to witness ship christenings, the shipwrights didn't think the idea quaint since they had to purchase each cup twice—once before the ceremony since they were the suppliers, and once after. These 17th century wrights, unable to bear (or unwilling to bear) this expense, devised a foolproof method to avoid "double taxation," so to speak. Just before each goblet was tossed over the side, they had their men rig a net around the ship at her waterline; the goblet was caught in the net and quickly retrieved by the builder.

The scheme was so successful—and such a party pooper—that a strong public protest was lodged with King Charles II forcing him to order the practice abandoned to maintain the peace.

The shipwrights were enraged at the edict. Charles had to make further concessions since he didn't want to incur "the displeasure" of the builders of His Majesty's Royal Navy. Therefore, everything reverted as before the days of net, with the exception that the crown purchased the cup from the lucky diver instead of the shipwright.

After all that, England abandoned the practice in 1690—possibly for economic reasons—and substituted a fine bottle of red wine or champagne for the cup. Having dispensed with the extraordinary cost of a standing cup for each ceremony, the most expensive spirits purchased from the most prestigious wine cellar were considered none too good for a christening—and still aren't to this day. ⚓

SECNAV, CNO TESTIFY BEFORE PAY COMMISSION

Secretary of the Navy W. Graham Claytor, Jr., and Chief of Naval Operations Admiral James L. Holloway III recently presented their views and recommendations regarding military pay and benefits to the President's Commission on Military Compensation.

Both SecNav and CNO stressed the uniqueness of military service as a prime factor in the consideration of possible changes to the present system of military compensation.

Secretary Claytor emphasized that the government has a commitment to honor the agreements made with service members currently on active duty. He stated, "Comparisons of military life with other sectors (such as federal civil service, private corporations, or state and local government) can be deceptive without a careful understanding of the unique environment and requirements that we impose on individuals in the military.

"Our personnel policies and compensation systems should continue to be designed to meet specific requirements of the military, and should not necessarily be directly comparable or competitive with those in other settings."

Admiral Holloway said, "There are demands imposed upon our people in terms of work environment, living conditions, length of work week, and existing or ever-present potential personal hazard which clearly preclude the drawing of comparisons between military and civilian career fields.

"If the institutional characteristics which distinguish the military profession from alternative occupational fields are eliminated, or if we attempt to precisely equate jobs or specialties in the military to those in the private sector, then we are effectively preordaining the failure of the volunteer force concept."

Secretary Claytor highlighted the need for a careful approach to the compensation issue. "In my view," he said, "changes in the system that we have today are much needed, but yet must be made with care and judgment; I am convinced that 'quick fit' solutions could be inappropriate or potentially damaging.

"Some potential compensation changes could have serious negative effects on the near-term morale and readiness of both the Navy and Marine Corps, despite the possibility of cost savings.

"Compensation plan changes must be considered on an integrated basis; we must break the habit of making piecemeal adjustments in the compensation system one element at a time."

Secretary Claytor suggested, "that the major challenge we face together in considering military compensation changes is how to balance two fundamental considerations: force effectiveness or manpower stability and cost efficiency – in a constructive fashion."

20-Year Retirement System

Admiral Holloway discussed the effect of the perceived "erosion of benefits" on Navy personnel, especially with respect to possible changes to the 20-year retirement system.

"As I know you have heard during your field visits," CNO said, "our people have seen what they consider to be a deliberate effort to erode the fringe benefit components of the compensation package in recent years.

"They are watching the progress of this commission with keen interest and apparent apprehension as news reports appear indicating certain elements of the compensation system are being considered for major overhaul.

"I can assure you that, almost without exception, our people believe the present retirement system should not be changed. They are especially sensitive to the need to protect the 20-year retirement option as an equitable means of providing deferred compensation for the extraordinary demands imposed on our sailors and, indirectly, on their dependents by a career in the Navy.

"American sailors historically have accepted the rigors of sea duty because it was the way of life they anticipated when they chose a Navy career and because they knew there would be an option to transfer to the Fleet Reserve and embark upon a less turbulent life style after 20 years. More than any other single component, this one feature of the present retirement system has served to buoy up the sailor during repeated tours of sea duty throughout his career.

CNO: "I remain convinced that if the existing retirement system must be changed, it is essential that we retain the 20-year option . . . ."

"I am aware of the strong external pressures being brought to bear against the 20-year option for retirement at half pay, and I therefore recognize the possibility that this option may be altered in the future from its present provisions."

CNO said, "The Navy has accepted the desirability of certain modifications in the retirement system, but we are convinced that these must be evolutionary in nature and based upon clear recognition of the unique part played by the 20-year retirement option in military manpower management.

"I remain convinced that if the existing retirement system must be changed, it is essential that we retain the 20-year retirement option for those who are in our sea-intensive ratings and their counterparts in combat arms specialties in the other services. Therefore, service managers should be permitted to offer that option to members in sea-intensive and other arms specialties under certain circumstances."

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With regard to people in the service today, the CNO said, "I must take a firm stand that no changes be made in the current 20-year retirement option for these members. I would include in such 'grandfathering protection,' all enlisted personnel serving beyond their first enlistment and officers beyond their initial service obligation."

"With regard to the retirement plan," Secretary Claytor said, "it is essential, in my judgment, that we draw a distinction between the retirement plan we provide to the careerist in our current military force and the one we offer in the future to new recruits and officer candidates.

SecNav: ". . . I strongly recommend that this commission advocate 'grandfathering' our career members under the basic principles of the retirement system in effect for so many years."

"I feel quite strongly, as do many of my uniformed colleagues in the Navy and Marine Corps, that we must fulfill the basic commitments we have implicitly made to our current members when they entered the military service. Thus, if we 'promised' our recruits of 5, 10 and 15 years ago that, in principle, they could retire at 20 years with the equivalent of 50 percent of their base pay, then we are obligated to meet those commitments.

"Accordingly, I strongly recommend that this commission advocate 'grandfathering' our career members under the basic principles of the retirement system in effect for so many years.

"I believe that the time has come for some movement to a fairer and more flexible retirement policy – subject of course to a liberal 'grandfather' provision, along the lines suggested above, to protect those present career officers and enlisted personnel who prefer to forego new benefits for continuation of the existing system."

Secretary Claytor indicated that some vesting of retirement benefits at a much earlier point than 20 years is called for: "Ten years seems a reasonable point for this, since this would occur during the term of a third enlistment and is the usual vesting period for civilian pension and retirement systems.

"Another additional benefit that is badly needed is a reasonably liberal severance pay arrangement for both enlisted personnel and officers where early termination, including refusal of a request for reenlistment, is required for the convenience of the service.

"With these, and other added benefits," Secretary Claytor said, "the present automatic right to retire voluntarily at 20 years could be extended to 30 years for both officers and enlisted personnel.

"It would seem appropriate and from the standpoint of retention of key mid-career personnel highly desirable, however, to authorize the services to institute a point system for those enlisted personnel with particularly arduous duty experience, or in occupations in short supply, that would entitle them to earlier retirement, with maximum credits permitting retirement at 20 years."

Dependent Support Programs

Admiral Holloway stated that the retirement question is not the only issue of concern to Navy personnel in the consideration of compensation changes.

"While the 20-year retirement option may clearly be categorized as the most important motivational facet of the compensation system to the career sailor," he said, "it would be totally insignificant to our preponderantly married careerists if not backed up by a strong package of dependent support programs.

"Most essential, however, is the availability of complete quality medical care; and unfortunately, this one, singularly vital benefit appears to me and most members of our Navy family to have been steadily eroding in recent years."

The CNO added that there are five additional issues of concern to Navy people which he urged the commission to give careful consideration: The increasing difficulty of obtaining adequate housing; the present inequitable treatment of Navy

Pay Commission

SecNav and CNO's testimony occurred during the last of eight public hearings conducted by the President's Commission on Military Compensation. The other military service Secretaries and the Chairman of the Joint Chiefs of Staff also testified during this final session.

President Carter established the "Blue Ribbon Commission" last March to study military compensation and retirement benefits and instructed them to be sure we don't "go back on commitments that have been made to those who enlisted in the armed forces."

The commission is composed of nine prominent civilian financial experts supported by a staff of 21 civilian and military professionals. The Navy is represented by two officers, LCDR Richard Barchi and LT William Bobo, and one enlisted man, Master Chief Petty Officer Robert Lewis Evans.

In addition to conducting four hearings in Washington, the commission has visited San Diego, Jacksonville and Norfolk, plus other stateside and overseas bases.

The commission is scheduled to make its report on military compensation to the President by March 15.

junior enlisted members; non-payment of a basic allowance for quarters to members without dependents assigned to sea or field duty; the urgent need to modernize the sea pay entitlement; and concern over the future of the Navy commissary and exchange systems.

The need to maintain and improve these kinds of benefits rather than shift to a salary-type compensation program for military personnel was emphasized by Secretary Claytor.

"I do not favor shifting to a salary or other single cash compensation system." Secretary Claytor said, "The unique nature of military service emphasizes the desirability of continuing a pay and allowance system with a number of benefits continuing to be made available 'in kind.' For example, the availability of commissary, PX, recreational and other facilities available only to the military community is a morale-enhancing factor out of proportion to its actual cost or computed dollar value."

Secretary Claytor concluded that, "We must subject all change proposals to a detailed and balanced assessment to assure compatibility with our critical force management needs."

ENGLISH FOOTBALL

We Came To Learn

STORY AND PHOTOS BY
JO2 JOHN PETERSEN

"This was really blistering stuff laced with high-speed running and dazzling variations. It provided some of the most explosive handling I have seen . . ." said an English sports writer.

Three losses, one win and one tie may not be an impressive record, but the San Diego U.S. Navy Rugby Team needs no excuses for its performance against the best rugby teams the British armed services could field.

Rugby is not exactly a household word in America. It may even appear to be a bit presumptuous of Americans to send a team to challenge the English on their own soil. Lieutenant Commander Jerry Fletcher, the U.S. Navy team's coach, explained the purpose of the trip, "We came to learn. We wanted to see how the rugby we play in California compares with that played where the game originated."

The team was made up of 25 officers and enlisted men from 19 Navy commands in the San Diego area. Because they were traveling on no-cost Navy orders, they raised the money for the trip themselves through exhibition matches and fund-raising projects. They were supported by the Navy League and the San Diego Chamber of Commerce.

During the first two matches, in which the Navy tied United Services at Portsmouth, 14-14, and beat a Royal Army team at Aldershot, 20-12, they played rugby the way you might expect converted football players to play. There was a lot of passing, some impressive open field running and some hard tackling that greatly impressed the local sports writers. As the tour progressed and the Americans tired from their demanding schedule (five games in 10 days) and the British players were forewarned of the Navy tactics, the hard-hitting football-style tackling softened and the long, cross-field passes went awry.

Rugby is rough and more than one of the opposing British players lost a tooth as the result of matches. The Royal Marines gave the Navy a lesson in how rough the game can be, beating the San Diego team 26-14 at Poole. The next game, against the Royal Navy at Portland, was slowed considerably by an official who was determined to keep things in hand. The result was the Americans couldn't build momentum—they lost 23-9.

The American team tried desperately to add the final game to their win column, but a tough, experienced Royal Air Force (RAF) team wouldn't cooperate. Despite an effort by LT (jg) Bert Calland to rally his team, the Navy lost by a 17-6 score.

22
21

The Americans were not embarrassed. They threatened to score right up to the end, but couldn't quite mount the attack necessary to punch through a determined RAF defense.

It was apparent during this final game that the British team was the more skilled. The Americans played hard and were tough and many times drew spontaneous bursts of admiration from the English spectators, but they didn't play with the same instinct of their opponents.

This was particularly noticeable in two aspects that an untrained observer might think required little skill: in gang pile-ons known as "rucks" and the head-to-head pushing contests rugby calls a "scrum." When an American player was tackled and became the victim of a ruck, the RAF players would take the ball from him, but when the Navy tackled an RAF player and a ruck formed, the British would skillfully work the ball out to their own side.

The same thing happened in the scrums. The British team pushed or maneuvered the Americans off the ball

until they could pass it with their feet to their teammates. The British were off and running again.

After the match against the RAF, as they sprawled about the clubhouse in exhaustion, many Navy team members were talking about trying to get up a scratch game the next day . . . just for fun!

Did the Americans overreach themselves by taking on the British on their own turf? Perhaps, but who can say the San Diego Navy Rugby Team's tour of England wasn't a success?

LCDR Fletcher's invitation to visit California created such a stir among the English players that a rugby tour of the United States is a future possibility. Such a trip may be in the offing as early as 1980. Just as American rugby excited the English crowds in September, so too should Americans appreciate seeing the British style of rugby. ⚓

'. . . yet shall he live'

STORY AND PHOTOS BY
JO1 JERRY ATCHISON

Unknowingly, many Navy traditions are born out of necessity. Those traditions continue because people sense a certain rightness about the act and, more importantly, what it represents.

Consider the tradition of burial at sea.

There are those who are drawn to the sea early in life, spend their productive years at sea and—ultimately, appropriately—elect to be buried at sea. To these people the sea is a powerful force; one they reckon with day after day, year after year.

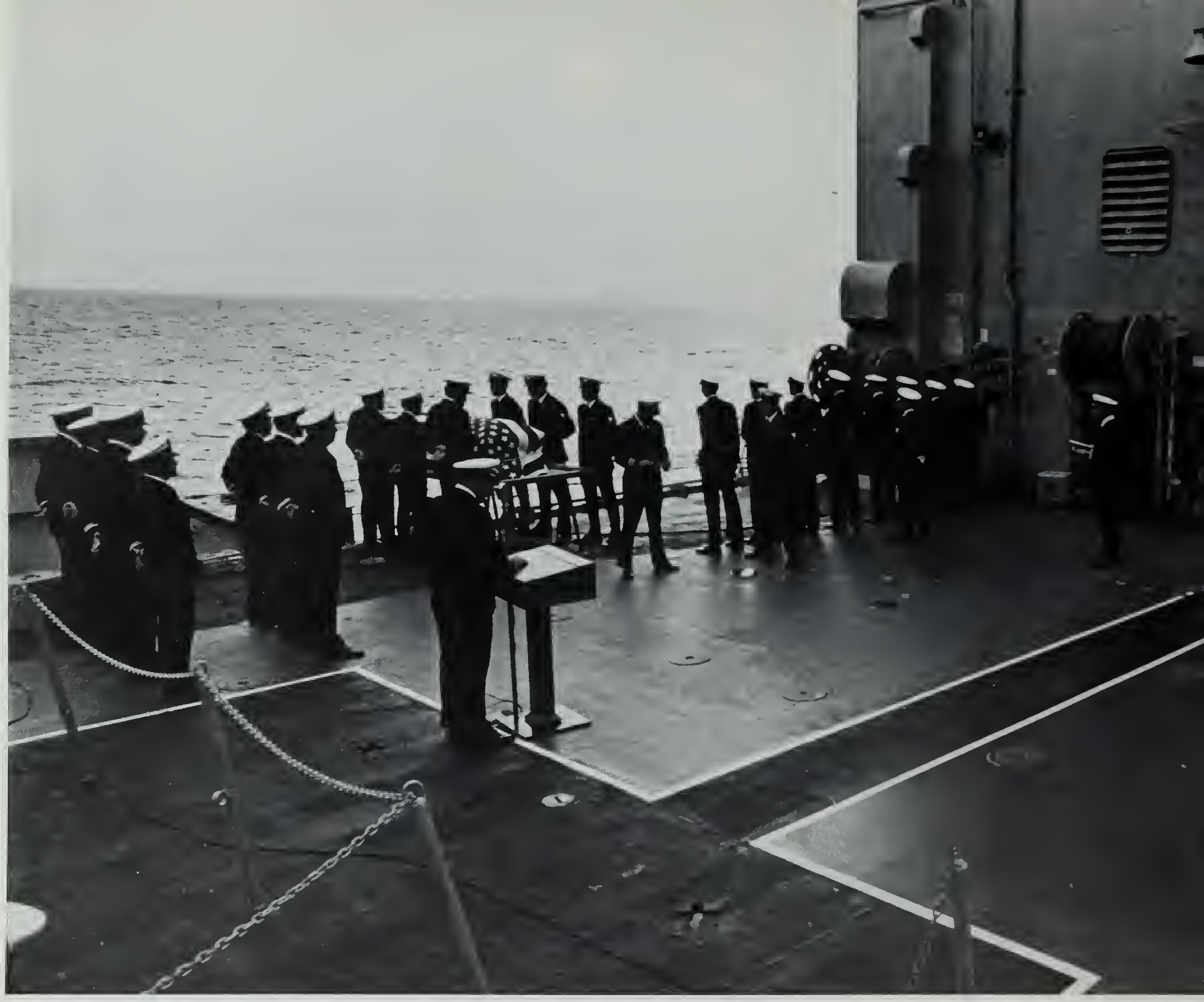
Ships have evolved over the years—gone from sail to oil to atom, grown larger, run faster, dived deeper and traveled farther. Sailors who man them have changed precious little; it is still man against the sea. In the end, some elect burial at sea as a final, respectful, maybe even grudging, gesture to the sea—their lifelong friend and foe.

Not many days ago, on a blustery afternoon off the Virginia coast, the word was passed aboard USS *Boulder* (LST 1190): "Now muster the burial detail on the fo'c'sle."

Soon thereafter, as the ship slowed, the flag-draped casket holding Boiler Tender 2nd Class James Edwin Archer, USN (Ret.), was borne forward to the starboard forecastle.

Boulder's log would read that at 1729, the officers and men "commenced burial at sea . . ." and that

Color photo by SK2 David M. McNeil



BT2 Archer's "remains were committed to the sea at position latitude 36°47.5′N, longitude 74°27.5′W in 978 fathoms of water."

But there was more to the rite than just the ship's terse log entry. It meant more, too, to many of the ship's company who participated in these last honors to a fellow Navy man.

"I've never seen a burial at sea before," said a seaman standing watch on the starboard wing. "As a matter of fact, I thought they only did burials at sea during wartime. Guess I was wrong."

Up forward, the ceremony had begun. It began as the commanding officer, escorted by the ship's chief master-at-arms, arrived on the forecastle and the call "Attention on deck" brought the assembled ship's company, firing squad, division officers and pall bearers to attention. At almost the same time, the officer of the deck passed the word "All hands bury the dead." The ship slowed in the water and her colors were half masted.

"I am the resurrection and the Life, saith the Lord: he that believeth in me, though he were dead, yet shall he live . . ." Commander F. T. Hinchy, *Boulder's* commanding officer, read the ancient words.

As the ritual proceeded through the scripture reading, one could not help but ponder on the man to whom *Boulder* sailors were now paying their respect. BT2 James Archer was a sea-going man. He first went to sea as a young man aboard a merchant oiler. When World War II began, his choice was really no choice: sailors go to sea and the U.S. Navy was fighting on the oceans of the world. After the war ended, a war in which he saw action in the Pacific, Archer decided, since his was to be a sea-going life, then it would be spent aboard U.S. Navy ships.

But it was a short stint at best—in 1951, he was transferred to the permanent retirement list because of physical disability and released from active duty.

Archer's sea-going days were far from over though. He soon signed aboard a merchant ship and continued a career that would end more than 25 years later. And it would be an appropriate end. He died on the job, at sea, aboard a merchant oiler.

So it was with a certain sense of rightness that *Boulder* crewmen lis-

tened as CDR Hinchy began to read the Protestant prayer of committal:

"Unto Almighty God we commend the soul of our brother departed, and we commit his body to the deep; in sure and certain hope of the resurrection unto eternal life, through our Lord, Jesus Christ. Amen."

With these words the flag was lifted from the casket, the board tilted and the casket slid into the water. It bobbed once, then sank from view.

The benediction was read, three volleys rapped out from the firing squad and taps was sounded by a bugler. The ceremony was over.

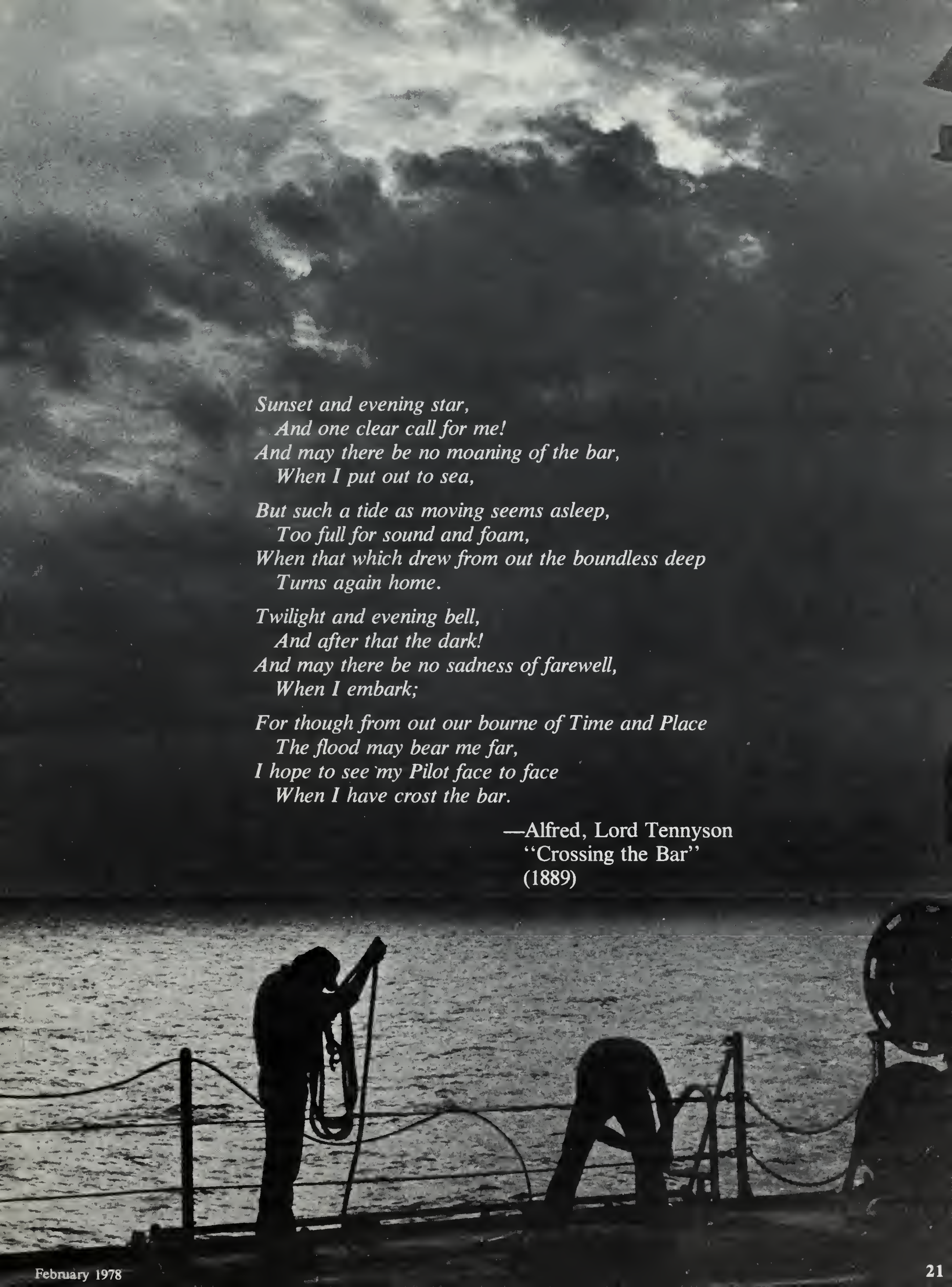
On the bridge, a quiet order, "All ahead one-third," was spoken. All aboard turned to their tasks, in scenes one knew would have been familiar, and appreciated, by BT2 James Archer. ⚓

Who Is Eligible For Sea Burial?

The following are eligible for and may elect they be buried at sea from a U.S. Navy ship:

- Members and former members of the uniformed services.
- U.S. civilian marine personnel of the Military Sealift Command.
- Dependents of members and former members of the uniformed services.
- U.S. citizens who by notable service or outstanding contributions to the U.S. are determined to be eligible for at sea disposition. Determination to be made by District Commandant.

If you so choose, you should discuss your desires for burial at sea with a legal assistance officer.



Sunset and evening star,
And one clear call for me!
And may there be no moaning of the bar,
When I put out to sea,

But such a tide as moving seems asleep,
Too full for sound and foam,
When that which drew from out the boundless deep
Turns again home.

Twilight and evening bell,
And after that the dark!
And may there be no sadness of farewell,
When I embark;

For though from out our bourne of Time and Place
The flood may bear me far,
I hope to see my Pilot face to face
When I have crost the bar.

—Alfred, Lord Tennyson
"Crossing the Bar"
(1889)

USS SHREVEPORT

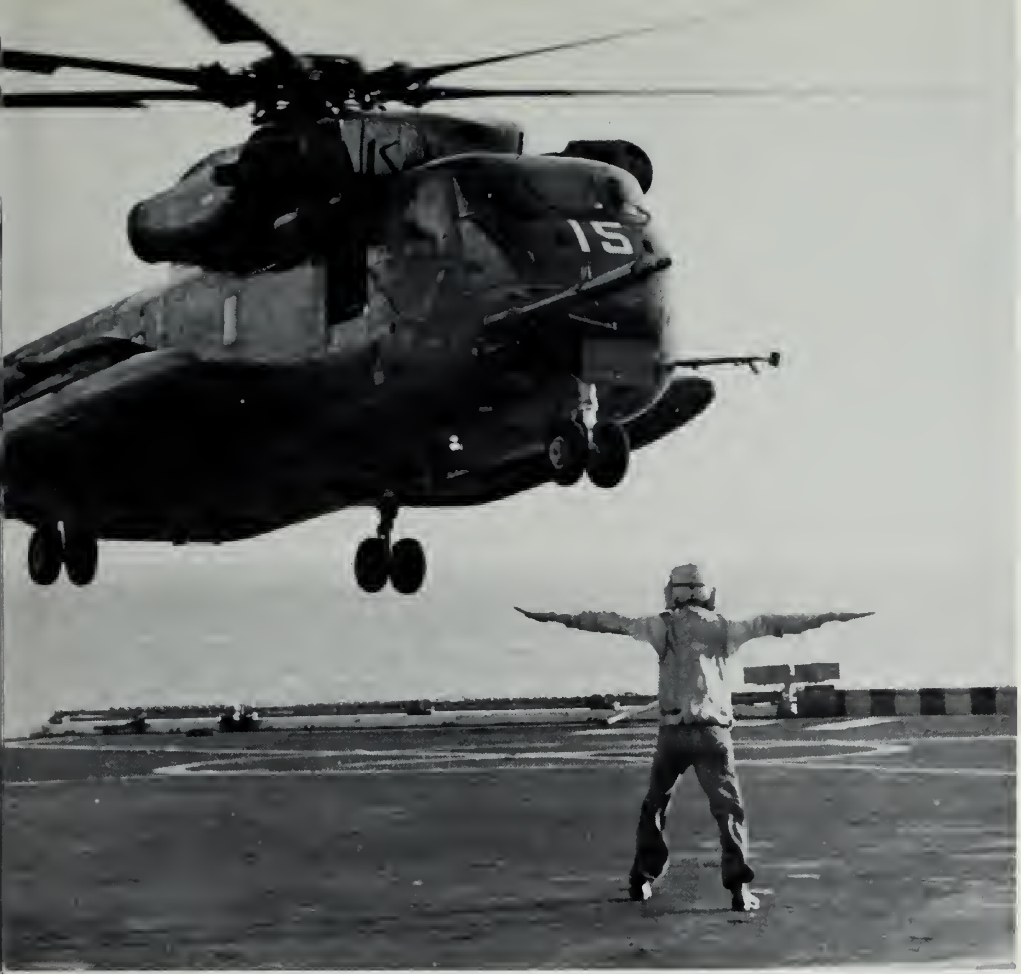
Usefulness Beyond Measure

BY JO2 GARY MILLER

Two twin-bladed Marine Corps helicopters take turns landing and taking off from the flight deck of the 569-foot amphibious transport dock USS *Shreveport* (LPD 12) while she cruises at sea, a few miles from Norfolk.

The ship's flight deck crew wait to assist the incoming pilots. One crewmember stands alone, separated from the rest by almost the entire length of the 240-foot flight deck. The movements of his arms are signals to the pilots, telling each how to land and where.

The flight deck nearly conceals another of the ship's many utilitarian features—the well deck. When amphibious operations are conducted, the well deck is filled with more than 800 combat-ready Marines prepared to leave the LPD in assault boats. When the deck's sterngate opens, valves on tanks in the ship's sides and bottom are hydraulically opened to flood the deck and ballast down *Shreveport*.



Left: USS Shreveport's *skipper, Capt. Burnham C. McCaffree, talks about the varied roles of his ship, whether helicopter operations (above) or Marines disembarking from the well deck (right). Photos by JO2 Miller and PH1 Mike McCabe.*

"The mission of the LPD is to carry the components of an amphibious assault force to the objective area and land them either on an opposed beachhead, assault area or across a friendly beachhead and then support the landing force until it is established," said Captain Burnham C. McCaffree, Jr., *Shreveport's* commanding officer.

"The LPD incorporates the characteristics of the landing ship dock, with its large well deck, and the landing ship tank, with its ability to land amphibians and carry large numbers of vehicles," the captain said. "Her usefulness is obvious in that we can go in with both waterborne craft and helicopters to evacuate civilians or land military in strategic areas or conduct other amphibious operations."

For example, when civil war in Lebanon was at its peak in July 1976, more than 300 U.S. and foreign nationals were stranded in Beruit. It was USS *Coronado* (LPD 11), a sister ship of *Shreveport,* which transported evacuees to Athens—a mission well within the spectrum of the LPD's capabilities. The 500-man crew of *Shreveport* train daily for just such an eventuality.

"Even in the face of a thermonuclear exchange, there still would be a need to safeguard or seize territory," the captain said. "To do this will require the foot soldier, whether Army or Marine.

"We in the Navy-Marine Corps team believe that there will be a need for amphibious assault forces—across the full spectrum of warfare."

Shreveport is a major player on that team. ⚓

Bearings

Santa Arriving

"We just wanted to do something special for the crew," said Special Services Officer Lieutenant (jg) Bob Degour about a recent top secret Navy operation off the coast of Southern California. From all reports, the operation was a success.

It all started in early November when Santa's helpers in USS *Horne* (CG 30) began planning a very special Christmas surprise for the officers and men of the San Diego-homeported guided missile cruiser. Unable to find a suitable location for the ship's Christmas party ashore, Degour suggested that Santa be cut in on *Horne's* at-sea position so a visit could be scheduled. Captain James A. Barber approved and Sunday, December 4, was selected for Operation Santa Claus.

Only four people were in on the plan: the captain, the XO, the public affairs officer and Lt. Degour. But keeping it a secret during three weeks of preparation was no easy task. Operations Specialist 3rd Class Ron Winkler, the man selected to play Santa—and all his helpers—were not told of their roles until the morning of the visit.

Before getting underway, Lt. Degour spent more than 10 hours doing leg work for Santa at the San Diego Navy Exchange and local department stores. One salesgirl nearly fainted, he said, when he slapped down 18 $100 bills on her counter—part of the $2,800 appropriated from the ship's recreation funds for the occasion.

When the big day arrived, the crew was enjoying their normal Sunday holiday routine. Breakfast had been secured and many of the crew were relaxing. Little did they know that Santa's helpers were checking their lists of "good little officers and men." Winkler was donning his new red suit, the captain was preparing an important announcement, and Yeoman 2nd Class Mike Senft was making final revisions to *Horne's* version of "A Visit From St. Nicholas."

At 0930, an unidentified flying object was sighted.

CAPT Barber announced the sighting and assured the crew that an investigation was underway. Shortly thereafter Santa's sleigh pulled by eight tiny reindeer landed on the flight deck.

His identity no longer secret (and his security clearance waived), Santa was escorted to the SITE studio where PAO Lieutenant (jg) Ed Rice was waiting with questions. Santa paused only a moment to explain his mission and then went right to work distributing gifts—first to those on watch and then to all aboard.

Everyone, by luck of the draw, received a present ranging from a $1 ship's pen to a $150 digital quartz watch. Not even Santa himself knew what the gift-wrapped packages contained. The skipper got a book.

No one is sure what the official North Pole response to the operation was, but rumor has it that a certain fat man with white whiskers was seen entering a Navy recruiting office a few days later.

Getting to Like It

"For several months we had only women in the waterfront section," said Lieutenant Virginia Nibbs, Operations Officer at the Naval Ocean Systems Center (NOSC) in San Diego. "Now we're getting a few men transferring in."

Around the NOSC waterfront it seems a woman's work is never done. There's boat driving, line handling, chipping and painting and other women's work that keeps the place hopping.

Seaman Cindi Richardson is coxswain of a launch that ferries people and equipment to and from NOSC's Oceanographic Research Tower. "When I joined the Navy, I was hoping for a desk job," she said. "I got on waterfront duty and I didn't like it—chipping and painting and all that. But I got into operating boats and now I love it."

Nowadays, of the 100 enlisted personnel assigned to the waterfront, 20 are women. One of the men running a mostly female duty section is Chief William Rutland. He said the pride of being able to say "my boat" has given significant incentives to NOSC women.

"There's a very positive attitude on the part of the women," he said. "Our policy is that we will teach any of our female personnel to operate boats if they're interested. All the waterfront section personnel can operate Boston whalers and I've got two qualified coxswains. Several of the women are going up for BM3 and if they make it we'll qualify them as craftmasters on the bigger boats."

For some, like Seaman Sheri Rankin, assignment to the waterfront came as a total shock. "I thought I'd be in an office and suddenly I was out on the pier. I think my deck grinder and me are getting along a little better."

Seaman Diane McCurdy also started sanding and removing barnacles when she was assigned to the NOSC waterfront. "It was difficult at first but now that I've learned the technique I really enjoy it," she said. She joined the Navy after three years of college where she was majoring in commercial arts.

"I realized I could either go back to school or get an ordinary job; I decided to join the Navy. When I get out I'll have my degree, and, after this, I'll have a trade as well," she said as she pointed to a freshly painted hull.

The center's Long Beach Facility once had boat crews that were predominantly made up of women. They served on a number of small craft, including torpedo recovery boats used during fleet torpedo firing exercises.

Nostalgic Visit

At the invitation of the Chief of Naval Operations Admiral James L. Holloway III, two former CNOs—Admirals Robert B. Carney (1953-1955), front center, and Arleigh A. Burke (1955-1961), at right, recently spent a day at sea aboard the Atlantic Fleet destroyer USS *Caron* (DD 970).

While the Norfolk-based ship went through routine training operations, members of *Caron's* crew gave the distinguished visitors a tour of their ship. Accompanied by Vice Admiral William L. Read, Commander Naval Surface Force Atlantic Fleet, they watched *Caron's* first LAMPS helo landing and a gunnery exercise.

Caron is commanded by Commander Earle G. Schweizer.—*Photo by LCDR T. C. Davis, Jr.*

Bearings

A Reserve Library

A library of more than 60 naval books was presented to Washington, D.C.'s Howard D. Woodson Senior High School by the Naval Reserve Association last November.

Rear Admiral Gerald E. Thomas of the Office of the Assistant Secretary of Defense for International Security Affairs and Lieutenant Commander Michael Bennett, Naval Reserve Association President for the Fifth Naval District, presented the library to the high school's principal, Mr. James Curry.—*Photo by JO2 Harold L. Sickler*

The Two Lives of Joseph Conrad

Family Tradition

Midshipman Sandy Jones is continuing a family Navy tradition. His father, Jesse J. Jones, retired as a chief petty officer after a 24-year career. Jones, a management technology major and member of the Naval Academy class of 1979, plans to select an "air-option" program that will allow him to go to the surface fleet to qualify aboard ship before he reports to flight training.

Weather by Computer

"Red sky at night—a sailor's delight; red sky in the morning—sailor, take warning." This may have been the rule when the only means of forecasting weather at sea was a sailor's weather eye. But it's a far cry from the methods used today by the Navy's Fleet Weather Central (FWC) at Pearl Harbor.

Keeping abreast of the latest in weather forecasting technology, FWC was the first to receive and use the Naval Environmental Display Station (NEDS) designed to replace four older computers of the Naval Environmental Data Network (NEDN).

NEDS is a console-type mini-computer linked directly to the main computer at the Fleet Numerical Weather Central at Monterey, Calif. It provides instant access to approximately 10,000 different weather products which include precipitation forecasts, cloud charts, surface pressure charts and wave and sea surface temperature charts.

The display station enables FWC to produce daily forecasts for numerous areas of the Pacific and alert Navy ships and shore stations within the eastern Pacific. For example, when a ship or task force is operating in an area where a major tropical storm is brewing, the weather center prepares a forecast and transmits the information to the ship or task force so they can evade the storm or take necessary precautions.

According to FWC Data Systems Officer Lieutenant Commander Mike McCallister, the data network procedure took about 10 man-hours to prepare weather information for a 12-hour period. With NEDS, the time has been reduced to about an hour. By pushing a series of numbered and lettered buttons on the NEDS console, a weather chart for a desired geographic area appears on the graphic screen. A detailed weather analysis and forecast can then be made for the area and, if a copy of the chart is desired, it can be made from the graph on the screen.

It is expected that NEDS units will eventually be in operation at Navy weather centrals in Rota (Spain), Norfolk, Guam and at the Fleet Weather Facility, Suitland, Md. ⚓

Going to sea with the MSC

BY JO1 JERRY ATCHISON

Radioman 3rd Class Perry Neal has good reason to smile. For starters, this picture was taken in the two-man stateroom Perry shares with a fellow third class aboard ship. Be advised two-man staterooms are not now, nor have they ever been, standard shipboard berthing arrangements for third class petty officers.

But this is Perry's berthing arrangement aboard ship and it's one reason he's smiling. That smile also is prompted by the set-up on the mess decks.

Every sea-going sailor is familiar with the mess deck scenario. First you get in line, then you pick up a tray and walk along the food-serving line where the tray's various compartments are filled.

For Perry and his shipmates, however, it's different. They seat themselves empty-handed at a table, pick up a menu from the starched tablecloth and wait for the steward, dressed in a white coat and bearing a folded towel over one arm, to arrive and take their order.

The steward works his way around the table as the sailors drape napkins on their laps, sip from water glasses and nibble on rolls.

One sailor interrupts his meal when he remembers he forgot to remove his clothes from the dryer.

This is a true story and not some tale of the Navy of the future. These sailors who live in two-man staterooms, eat on mess decks graced by menus and stewards are all members of the U.S. Navy. These same people also have their own washers and dryers.

Perry, his 15 shipmates and an officer-in-charge, enjoy all these shipboard amenities. They are members of the military department of

Going to sea With the MSC

the civilian-manned Military Sealift Command (MSC) fleet stores ship USNS *Rigel* (T-AF-58).

Rigel is one of 22 U.S. Navy ships that have retained the same mission requirements but have since been reassigned to MSC for manning and operations. Each ship carries a military department ranging from one to 16 sailors depending upon that ship's job. These 22 ships perform a wide variety of fleet support or special project tasks as indicated by their composition: eight oilers, four fleet ballistic missile resupply ships, four tugboats, five special project ships and one fleet stores ship—the already mentioned *Rigel*.

There are various reasons for assigning these U.S. Navy fleet support ships to MSC:

- Coinciding with the Navy's reduction in manpower during the past few years has been a marked increase in the sophistication and range of technical skills required to operate the complex warships of today. Result, fewer people possessed of greater skills—skills more effectively used aboard warships as opposed to fleet support ships. The assignment of these ships to MSC and their subsequent manning by civil marine personnel, therefore, saves trained Navy manpower. Civilian crewmen are U.S. Civil Service employees of the Navy with either Navy or Merchant Marine backgrounds.
- The reassignment also saves Navy shipbuilding funds by converting and using existing Navy ships operated by MSC rather than building new ones.
- It saves manpower and operating dollars as well because MSC-operated civilian-manned ships carry about one-half the crew the same ships had when Navy manned. Civilian manning also means a greater percentage of at-sea versus in port time.

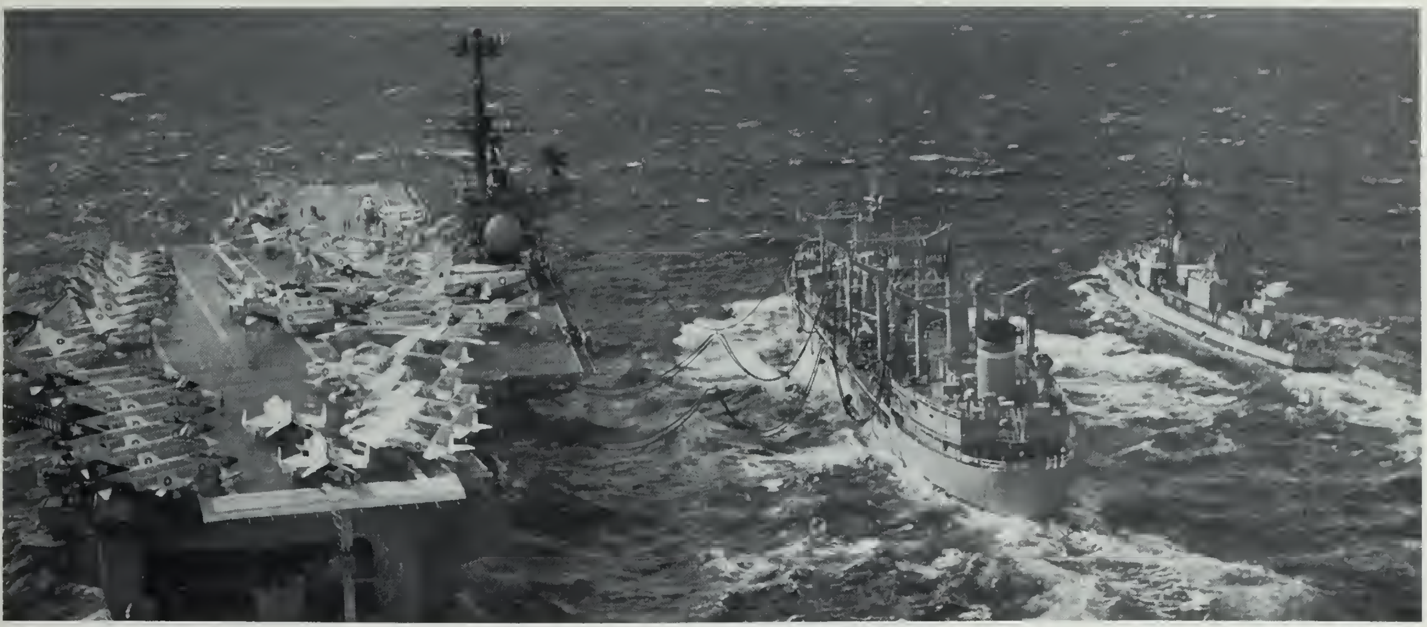
So civilian manning saves money and manpower. But these ships still operate with the Navy. This means you've got to have military expertise aboard if they're to meet successfully their military support requirements. Here's where the military departments come in.

Navy-wide, nearly 200 sailors are assigned to 22 MSC's fleet support and special project ships. Although the size of each military department may vary from ship to ship (*Rigel* has a 16-man department) they are staffed by men trained in unique Navy skills or in skills for which there are limited civil marine personnel equivalents.

Here's a general list of those rates:

RADIOMEN—Merchant ships, and most MSC ships carry only a single radio officer who generally stands only eight hours of watch a day. That's because message traffic is limited. Navy ships, because of their unique operational requirements and equipment redundancies, require manning of the radio shack around the clock—with radio technicians as well as operators. Around-the-clock manning is necessary to make certain that equipment is maintained at peak efficiency and that Navy signals are rapidly decoded and messages passed on. Since MSC-manned ships operate with the fleet, Navy radiomen operate and maintain radio shacks.

SIGNALMEN—Just as radiomen ensure MSC and bluejacket-manned ships are electronically "talking the



MSC Photo

Facing page: On Rigel's *mess decks, a steward takes a sailor's order while others serve the civilian and military crew. Above: USNS* Waccamaw *flanked by USS* Independence *(CV 62) and USS* Richard E. Kraus *(DD 849) during underway replenishment.*

same language,'' so are the signalmen—but in a different way. Fleet support necessarily means MSC ships operate in close quarters with the Navy's military manned ships when steaming in task groups or while conducting underway replenishments. And although we know this is the age of electronic communication, nothing has come along to replace the signalman's flags and flashing lights for quickly passing the word during these evolutions.

OPERATIONS SPECIALISTS—OSs are particularly helpful aboard MSC ships not only because of these abilities but because of their familiarity with Navy ship-handling characteristics. Therefore, when matters of approach course and speed arise during unreps, the ship's master and military department head often turn to the operations specialist for advice.

ELECTRONICS TECHNICIANS—Since military department personnel operate many specialized or Navy-unique pieces of equipment, someone with the right training and experience has to be around to fix that equipment. Navy electronics technicans ensure equipment works and keeps working.

DATA PROCESSING TECHNICIANS—The Navy supply system relies heavily upon computers to keep track of what's needed, what's available and what's to be done to bring the two together. There are few civilian seagoing data processing experts so Navy DPs work with the ship's purser (supply officer) to maintain the computer records of these support ships.

YEOMEN—The larger military departments include one yeoman to handle the always present paper work and, in many cases, maintain the personnel records of the sailors embarked.

Want to volunteer?

If you are a member of one of the rates mentioned in this story and you would like to volunteer for duty aboard MSC ships, you should indicate your preference in the remarks section of the Enlisted Duty Preference Card.

Although the military departments are composed of different people with different skills, the nature of their work aboard a civilian-manned MSC ship dictates they share some traits. Each sailor is either the sole representative of his rate aboard ship (which makes him the only such expert around) or he is expected to stand an independent watch in his particular shop (which *still* makes him the only expert around). Because of this, they must know their jobs well—both in depth and breadth.

And since military department manning provides for only a skeleton crew within each area, the really valuable member of the department is the sailor who not only knows his job but has taken the time to learn something of his shipmate's work as well. That's why you're likely to find a yeoman, for example, who can not only type but can also handle the signal flags aboard MSC-manned ships.

Each job is a challenge. Consider the signalman who has no section chief standing at his shoulder when he signals information allowing two mammoth ships to safely close for underway replenishments.

There are other unusual situations facing the sailor assigned to an MSC ship. The good things—like the challenging work, ''plush'' berthing and steward-served meals—are neutralized for some, and overshadowed for others, by the

Going to sea With the MSC

inconveniences of MSC life.

The number one disadvantage voiced by most MSC-assigned sailors is the operating schedules. MSC ships go to sea and stay at sea until their missions are fulfilled—be it transferring all their stores or every drop of oil, conducting salvage ops—in the case of MSC tugs—or laying every inch of cable in the case of cable laying ships.

In port periods are for loading the next consignment of cargo and making preparations to get underway and back at work as soon as possible.

Civilian crews are the reason MSC can operate both at sea and away from homeports for longer periods during peacetime.

Since civilian sailors are hired and paid for the work they perform at sea on an hourly basis, it is sound fiscal policy to keep those ships at sea as much as possible. Civilian crews are also hired with the understanding that once every nine months they are eligible for rotation off the ship and back to their homes. So nine months—about the length of a Navy ship's WestPac deployment during war time—is the longest they will be away from home, no matter where the ship travels.

Military members on most MSC-manned ships have 12-month tours although they can extend if they want to—and many have. Exceptions to the unaccompanied year's tour are assignment to *Rigel,* to three of the four tugs and to the four fleet ballistic missile resupply vessels.

Two-man staterooms and mess deck pleasantries notwithsanding, MSC Navy men are not on a pleasure cruise. The high marks given the habitability arrangements (which are, by the way, established by labor-management agreements) are brought down by the long work days, a long string of days in each deployment, and the too short periods of leave and liberty.

After all, a steward who asks if you prefer mushroom or tomato soup with supper is a poor substitute for family and friends. But, as some Navy men assigned to MSC ships believe, "If you've got to go to sea, you might as well go in style." *(See page 32.)*

MSC Photo

Facing page: Crewmen of MSC ships, like RMC Donald Jackson, do their own laundry at sea. Above: An MSC ship seen from the hangar deck of an aircraft carrier during underway replenishment. Right: A Navy man and civilian stand watch.

Going to sea With the MSC

YA GOTTA BE KIDDING ME. SAILORS AND CIVILIANS WORKING TOGETHER AT SEA IS LIKE MIXING HOT FUDGE AND DILL PICKLES—GREAT WHEN TAKEN SEPARATELY, DISASTROUS WHEN COMBINED.

Funny you should say that. We asked the Navy men assigned to USNS *Rigal* a question along those same lines. We also asked it of some of the civilian crewmen. Here are some of their replies:

RMC Donald Jackson, the MilDet's leading chief: "That's not true. For one thing, most of the military jobs don't put the sailors in day-to-day contact with the civilian crewmen on the job. We have our job and they have theirs. But we are both working toward the same thing—getting the ship's fleet support job done."

RM3 Perry Neal: "I think it's great. Some of these guys come from interesting backgrounds and have got some *real* sea stories to tell. A lot of them too are just as interested in the work we do as we are in their work."

Rigal's Purser: "I work with the DPs, who handle the computer records of our stores. But these guys are always quick to jump right in and help out when things get bogged down. Right now, one of the fellows is out helping check-off cargo being loaded aboard. He doesn't have to do that but he wants what I want—a well-run supply department."

An unidentified civilian crewman: "We've got a running joke aboard here that we're always kidding the sailors about. Face it, we make more money than most of the military aboard so we always tease the guy who brings up the subject by telling him 'if he likes the money we make so much why doesn't he get out of the Navy and go to work for the Navy in a civil marine status?' It never fails to get a rise out of them but they're in the Navy because they want to be and we're sea-going civilians because we want to do this. You're not going to change the minds of either of us."

Manuel G. Vieira, Master (skipper) of USNS Rigal: "People erroneously believe sailors and civilians can't work well together because they forget one thing: both the Navy men and the civilian crewmen are doing what they want to do where they want to do it—at sea. Both groups are professionals working together to see the ship successfully fulfills her mission. There may occasionally be personal differences, but there is always professional respect for the other fellow."

LCDR James Lamb, Officer in Charge of Rigal's military department: "There are few problems because the Navy men have to be mature and resourceful in order to handle their jobs well. That same brand of maturity marks their dealings with the civilians. . . . All in all, not a bad bunch of sailors I've got here." ⚓

Left: Manuel G. Vieira (left), skipper of USNS Rigel, *with LCDR James Lamb, officer in charge of* Rigel's *military department. Right:* Rigel's *purser and a Navy data processor study a computer print-out.*

If They Call This an Ocean . . .

. . . It's a SAREX*

STORY BY JOC CRAIG HUEBLER
PHOTOS BY PH2 PAUL SALESI

"Right guard—right guard—this is Blue Grass 306. I'm down. My right arm is broken. I'm bleeding. I'm about 23 miles northeast of target.

"Saw enemy activity on way down—heard small arms fire not far from my present position."

This is not a scene from the Vietnam War but rather a training exercise at Naval Air Station Fallon, Nev. The scene, however, was one which occurred in Vietnam many times. As a result of those Vietnam experiences, Combat Search and Rescue exercises (SAREX), that include both fixed-wing aircraft and helicopters, was begun by the Fleet Aviation Specialized Operational Training Group, Pacific Fleet (FASOTRAGRUPAC) in December 1970.

Preceding page: When a SAR helo rescues a downed pilot, a "Feet Wet" signal means the helo has left enemy land behind and is over water en route to the waiting ship. But when SAR training takes place at NAS Fallon, Nev.—miles from any water—Sand Mountain shown here becomes the "Feet Wet" area for participating units.

Today that training continues. Air wings request one to two-week SAREXs prior to each deployment. Besides NAS Fallon, the training is also offered at Marine Corps Air Station Yuma, Ariz., Marine Corps Base Camp Pendleton, Calif., and Naval Undersea Center San Clemente Island, Calif.

Helicopter support for the training is usually provided by HC-1, the only active duty squadron with a combat SAR mission or by the Naval Reserve combat SAR squadron, HC-9.

The purpose of the course is to equip aircrew members with the skills and techniques necessary to recover friendly personnel from enemy territory in a combat environment.

The scope of the training is, first, a formal presentation given to all aircrew members. This explains duties and responsibilities of an on-scene commander, recovery unit and what's expected of a survivor. It includes talks on the proper use of appropriate survival and signaling equipment.

The second phase is an operational exercise in which an on-scene commander directs recovery of personnel. He does this while being opposed by an aggressor force capable of using simulated small arms fire, automatic weapons, anti-aircraft artillery, mobile artillery and missile sites.

Following the FASOTRAGRUPAC briefing, two or three air wing members are placed in the desert hills 25 miles southeast of Fallon. Using PRC 90 radios tuned to a frequency other than guard, they contact a fixed-wing pilot. The first fixed-wing pilot on the scene usually assumes the role of on-scene commander.

(→)

Opposite page: Two "enemy" soldiers take aim at a downed pilot. This page, top: A SAR helo, with pilot and crewman dangling, makes a hasty getaway from an enemy zone. Right: As seen from the helo doorway, an air crewman holds an injured pilot as the two are winched aboard. Below: A green smoke bomb signals "safe" areas that have been swept of enemy units and artillery. But since the enemy also has green smoke bombs, this helo double checks the area before going in for a rescue.

*SAREX – Search & Rescue Exercise

SAREX

He must authenticate, locate, call in air strikes or eliminate any enemy himself. When he determines it's safe, he calls in the helo pilots.

Two attack aircraft escort the helo at all times. They fly a circular pattern around the helo, ready to lend fire support to the helo, if needed.

As soon as the helo crew effects a successful rescue and is escorted back to a designated "safe" area, the exercise is considered over. There are usually two exercises a day.

After a SAREX, all participants are debriefed by a qualified FASO instructor.

According to Lieutenant Donald Hoge, FASO coordinator, "The debrief is probably the most important element. After the pilots and crews have experienced the problems associated with such an evolution they come back with plenty to talk about.

"Our primary emphasis for this training is for the on-scene commander. We assumed in Vietnam that any fixed-wing pilot could coordinate a SAR and any helo pilot could make a rescue. We found this to be untrue.

"With the training of the jet pilots in how to direct and protect the helicopters, our pilots can have confidence in the Combat SAR forces. In wartime, the chance of being shot down is high. There must be an equal chance of being rescued."

This feeling may best be said by HC-7's motto: "Combat SAR prevents POWs."

Lieutenant John Kennedy, a pilot with HC-7 during Vietnam, explained why his squadron's rescue record was excellent: "Units which operated after 1967 had better records because we benefited from those who went before us. I don't believe the Combat SAR mission can be done well without constant practice." ⚓

Top: Classroom training and field demonstrations precede each SAREX. Above: A downed and injured pilot keeps a low profile while radioing for assistance. Right: The sun sets over the rugged desert land of the NAS Fallon SAREX training area.

Information Exchange

Q. *If Military Sealift Command assets now are substantially below those available during the Vietnam War, could MSC respond to requirements in a future military contingency?*

A. In the past, MSC could rely on the availability of a large number of ships in the National Defense Reserve Fleet; age and obsolescence have reduced this fleet to about 130 ships. The command now books about 97 per cent of all military dry cargo on U.S. flag-scheduled commercial liners and privately-owned chartered ships. Its few USNS cargo ships support unique requirements, such as Arctic-Antarctic support.

Because the Armed Services rely heavily on the U.S. Merchant Marine in peacetime, they would have to do the same in an emergency. That means that the military must be able to load and offload container ships, barge ships, roll-on/roll-off ships, and other modern, large, fast and costly ships over the beach if need be. A number of exercises have been conducted to develop that capability.

Q. *What is "separation leave?"*

A. BuPersNote 1050 of 9 March 1977 published policy concerning leave in conjunction with separation whereby a member is granted leave which expires on the day of separation without the necessity of the member returning to a separation activity for processing.

The provisions of BuPersMan Article 3810260 (Place of Separation) remain in effect for those members not desiring separation leave, but who desire to use accrued leave and be transferred to another activity for separation processing.

"Retirement leave" provisions are contained in BuPersMan 3860220.

Q. *Can vendor "cents-off' coupons be redeemed at the Navy Exchange?*

A. Yes, coupons available to customers through newspapers, magazines and direct mail are redeemable at the Navy exchange as a discount off the regular price of merchandise that is carried in stock. However, Navy Exchange cash register operators cannot accept coupons after their expiration date and coupons must be redeemed for merchandise actually purchased.

Q. *What is car hydroplaning?*

A. Hydroplaning occurs when a car floats or "skis" across a layer of water on the road. During this condition, the tires stop rolling, steering goes haywire, and brakes don't help. Conditions which can cause hydroplaning occur on rainy days when water accumulates in depressions on the road. At slow speeds tires are able to throw the water away from their path so the tread can grip the road's surface. As speed increases, the tread is less able to throw off the water and suddenly, with little warning, the tires are no longer in contact with the road. The car is actually hydroplaning, or skiing, on a thin layer of water.

Here are some things you can watch for to prevent hydroplaning:

- Look for hydroplaning conditions. Your chances of skiing are good where there are puddles of water on the roadway. It doesn't have to be a heavy rain. Hydroplaning can occur during a heavy dew, fog or even after the first few drops.
- Listen to your tires. If they "sing" and "splash," slow down; reduce your speed about 20 per cent. Even on a straightaway, partial hydroplaning can happen at 30 m.p.h. Above 55 m.p.h. the tire may totally lose contact with the road. A gust of wind, a change of road camber, or a slight turn can create an unpredictable and uncontrollable skid.
- Keep a "feel" for the road. During wet conditions firmly grip the steering wheel at the nine and three o'clock positions. Corner carefully and don't make abrupt movements with the steering wheel, brakes or accelerator.
- Don't tailgate. Stay further from other cars than usual and follow the tracks of the car ahead. Its tires will clear away the water for yours.

If possible, before driving on wet roads, increase your tire pressure to maximum limits, especially the "low-profile" type. Check your tire tread depth because worn tires lower the speed required for hydroplaning. Large open grooves in tires push water through and away from them. Distribute the weight evenly in the car. Too much weight on the rear wheels will scoot the front end up like a speed boat if hydroplaning occurs.

If you do hydroplane, *don't touch the brakes.* Take your foot off the accelerator. Let the car slow down gradually. Don't move the steering wheel. Steering to regain control, which is helpful in "fishtailing," will only make things worse when hydroplaning. All you can do is hang on until the tires regain firm contact with the road's surface.

Q. *I used my VA Certificate of Eligibility to purchase a home in 1970. I sold this home on an assumption. Am I entitled to purchase another home using the balance of my benefit?*

A. You may use the remainder of your guarantee. You should apply for a new Certificate of Eligibility. The amount of guarantee has been increased to $17,500. This is $5,000 more than you were entitled to in 1970. ⚓

Advance to GO, collect ....

BY JO2 ART ROBB

It's More Than a Game

When John L. Sauter speaks, people listen. If they listen hard enough they usually wind up being advanced.

Sauter is no witch doctor, but around the Aircraft Intermediate Maintenance Department at NAS Pensacola, Fla., his reputation shines.

Sauter, a retired Army master sergeant in the personnel management field, is now an education specialist. He runs his department's education programs. Although it took him 20 years to change sides, he believes the Navy has the best advancement system of all the Armed Services.

He talks figures to support his belief. "Off the February 1977 third class exam, 26 of our people were eligible for E-4 and 26 made it. Out of the 26 E-4s who took the E-5 exam, 14 were advanced. Five of 32 E-5s made first class and three chiefs made warrant.

"One of the keys," he says, "is control of training petty officers at the division level. Training petty officers cannot be classified as experts since they seldom serve as training petty officers at all their duty stations.

"I help them build their lesson plans and I provide them the latest information on advancement."

The day a person checks into the maintenance department, Sauter reviews his or her record to determine what needs to be completed. The order for study materials is filled in right then and there. Sauter frequently checks with the air station's educational services officer to verify what an individual has done and what he needs to do.

He advises Navy people to make absolutely sure when they do something that it is entered into service or training records. Time and again individuals say that they did this and that course, that they took the leadership exam, when in fact it was not indicated in their records.

"You can go all the way to exam time and find out you did not get credit," said Sauter.

The maintenance department's division officers and supervisory personnel meet bi-annually and discuss advancement of their people. Every individual's training record is inspected to determine those eligible. If there are any questions, Sauter asks the division officer to help him turn people around.

According to Sauter, one thing that is essential to a good program is free access to the department head, in his case, Commander Gordon L. Stephens.

Because an increasing number of individuals have had problems passing the military leadership exam, Stephens had one of his career counselors teach military leadership. The 30-hour course was conducted partially during working hours. As a result, six men who had previously failed the exam several times were able to achieve a passing score.

Aviation Structural Mechanic 1st Class Robert L. Jones will take the chief's examination this time around. He says, "All the information I need to know is available in a number of publications. I might have to look harder for some answers but they all are there."

Jones says Sauter never pushed him to meet the qualifications needed to be eligible to take the examination.

"You cannot force a man to take an examination. If you do, chances are he'll make a poor leader in the end. I'm trying to advance—that's what counts." ⚓

Getting back to basics aboard Lady Lex

If you can read, you can study. And if you study, you have an even chance of passing the advancement test. Without study, you may as well kiss your promotion goodbye.

This is the philosophy which prompted USS *Lexington* (CVT 16) personnel to improve their reading abilities.

Lexington's reading program is an adult basic education course jointly funded through Pensacola Junior College, the State of Florida and the federal government.

Lieutenant (junior grade) Jim Lewis, the carrier's educational services officer, advertised the volunteer reading improvement program in the Plan of the Day. The emphasis was "that the program would help people who had trouble getting advanced and those who had trouble passing military leadership examinations."

Sixteen crewmembers, 12 with high school diplomas, volunteered to take the course and an instructor with experience in teaching military people, Miss Dede Grow, was contracted.

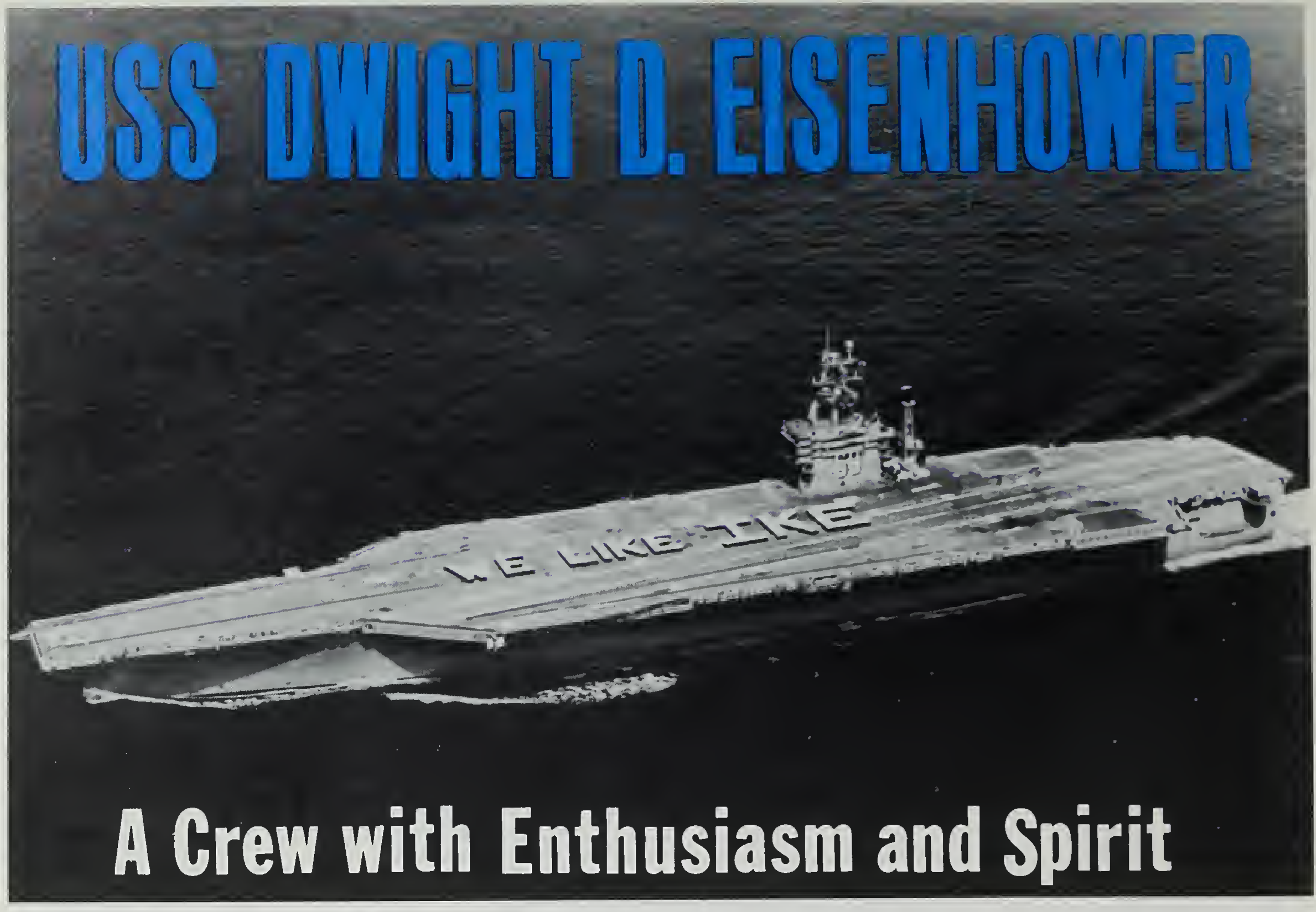
Miss Grow first asks her students what they like to read. "I am not particular about what they read as long as they read," she said.

Classes are held daily and instruction centers on vocabulary building, sentence structure and word usage. Twice a week students are assigned to write sentences, using five new vocabulary words; each sentence must reflect the proper meaning of the words. Once each week students are asked to read and explain to the class articles taken from various publications. Instruction is also given in test-taking to prepare them for the advancement exams.

When the students began classes, they were given a reading test. Miss Grow found reading levels ranging from as low as the fourth to as high as the 12th grade level.

One student expressed the general attitude of those in the class, "I know I'll absorb something that will help me pass advancement exams and also help me in my job. That's sufficient payment for taking the course."—A.R.

USS DWIGHT D. EISENHOWER



A Crew with Enthusiasm and Spirit

BY JO2 LON CABOT

USS *Dwight D. Eisenhower* (CVN 69)—she's one of the Navy's latest additions to the fleet. With a flight deck area covering four-and-one-half acres, accommodations for more than 6,000 crew and air wing members, and a complement of approximately 100 tactical aircraft, "Ike" shares the distinction with her sister ship, USS *Nimitz* (CVN 68), of being the largest naval vessels ever built.

Two nuclear reactors make her capable of sustained speeds in excess of 30 knots and are designed to provide more than 13 years of normal ship operation before refueling. Because conventional fuel storage is not required, "Ike" can carry almost double the aviation fuel and ammunition of conventional carriers.

It takes a special person to bring life into a new ship. Just such a man is Captain William E. Ramsey, skipper of *Eisenhower*. Here are some of Captain Ramsey's views as he takes command of the Navy's newest carrier:

Q. *Would you elaborate on the extensive use of armor and anti-torpedo hull design in the construction of* Eisenhower?

A. We recognize that a carrier is a very high value target for hostile forces. The *Nimitz* class carriers (which includes *Eisenhower*) have the ability to take a good deal of punishment. Obviously, what has been designed into this type of vessel is intended to counter the types of weapons that we might expect to have unleashed against us. Those weapons include torpedos, anti-ship guns and air-launched weapons or missiles.

Q. *What, in your opinion, justified the expenditure of approximately $800 million for the construction of a single Navy combatant, specifically, USS* Eisenhower?

A. I think of *Eisenhower* as an investment. Hopefully we will never have to utilize this ship in a manner that would be destructive, but one, that if ever called upon to be so utilized, will pay significantly high returns.

As for immediate "returns," this vessel, representing and flying the American flag throughout the world, gives physical evidence to our friends of our support. For those who have contrary philosophies, this ship also demonstrates that there is a significantly powerful force readily available to respond, if the need be, to any situation that might develop.

Q. *With a full complement of some 6,000 men aboard, what programs or plans have you implemented to keep personnel problems at a minimum?*

A. The crew has essentially been reporting in for duty since August 1975. Recognizing that one of our initial and primary objectives was to create a viable training program, we established what has come to be called the "FAM and

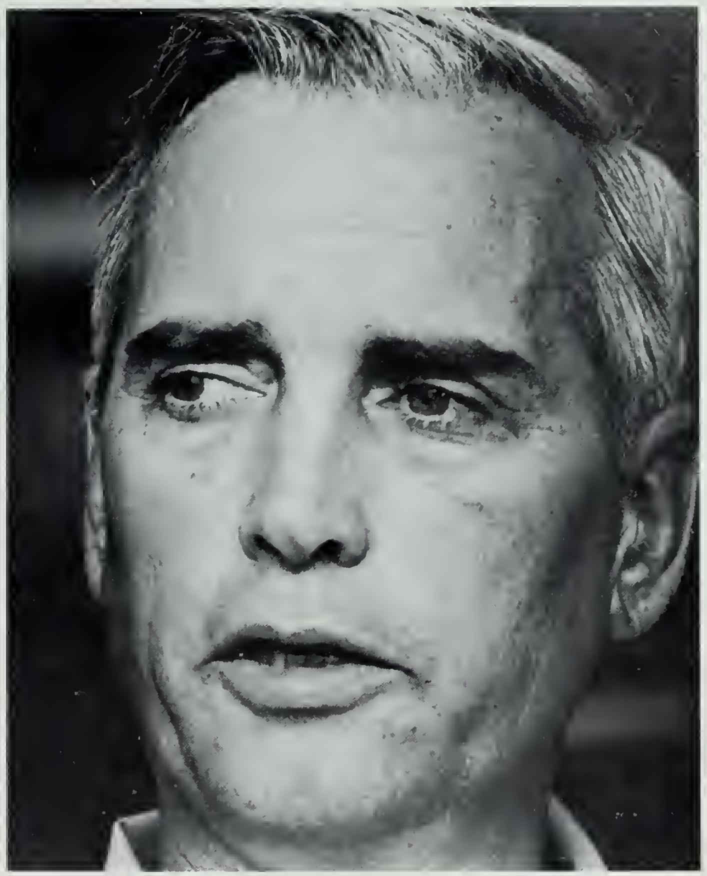
I" or Familiarization and Indoctrination Program.

This program is a five-week course and we make sure every member of the crew receives instruction. Specially selected crewmembers went through instructor training and now assist the coordinators of the course. Incorporated into the program are Human Resources Management courses, career counseling, Drug and Alcohol Abuse Counseling and indoctrination to shipboard life. And because the program is so extensive, I think that many personnel problems will be alleviated.

Q. *There's been a great deal of debate the last few years concerning naval superiority. Do you think U.S. naval forces could be pitted successfully against some of the world's other naval forces?*

A. I'd select U.S. naval forces in any kind of confrontation for a number of reasons. I think the ships we are building today are vastly superior and can withstand the rigors of battle much more so than ships of the other navies. Also, our people stand head and shoulders above the individuals manning the forces we would be most likely to encounter.

A major part of "Ike's" commissioning crew—nearly 70 per cent—has never been to sea before. An even larger percentage of our senior petty officers has never served aboard a carrier. Still, I feel that our crew has more than made up for their lack of experience through their enthusiasm and spirit, and, above all, through the training they have already undertaken. ⚓



Captain William E. Ramsey

Ike Chief Yeoman Graduates Summa Cum Laude

One of the more pleasant tasks for Ike's skipper is the presentation of awards and honors to members of the crew. Recently, Captain William E. Ramsey added his congratulations when he presented a bachelor of science degree (summa cum laude) from the University of Maryland to Senior Chief Yeoman William M. Carter.

Carter, now assigned to Staff Carrier Air Wing One, earned the majority of his college credits by taking night courses at his last duty station. He also took College Level Examination Program (CLEP) and Defense Activity for Non-Traditional Education Support (DANTES) exams.

Also present to witness the ceremony was Commander Gary F. Wheatley, CO of Carrier Air Wing One. (Photo by PH2 Alleyne.)

New Sea Pay

Eight years in planning, the Navy's proposal to increase sea pay rates for seagoing petty officers was recently approved by the Office of Management and Budget (OMB) and will be submitted to Congress for consideration. A basic objective of the proposal is to take the present $30 million which is spent annually on sea pay and redistribute it in such a way as to provide meaningful recognition to sailors in critical seagoing duty.

Under new eligibility criteria, payments between $25 and $100 monthly will be made to qualified seagoing career petty officers. The $25 rate will be paid for over three cumulative years of sea duty; this will increase to the $100 maximum figure for more than 12 years of sea duty in a career.

The proposal also ties advancement to sea duty pay—a sailor will have to be promoted to third class petty officer before he is eligible for sea pay. Conversely, the more years a career sailor spends at sea, the more cash he can draw as sea pay. To be eligible for the $100 scale, a sailor must have 12 years of sea duty on record.

Currently, sea pay is authorized for all enlisted sailors assigned to any class ship, embarked unit or staff. Levels are based on paygrade alone and range from $8 for E1/2 to $22.50 for a CPO.

Historically, sea pay in the U.S. Navy dates back to 1812. The present sea pay rates were approximately 10 percent of a sailor's monthly pay when they were established in 1949. These fixed rates have since dwindled to less than 3 percent of a sailor's basic pay.

The following helps to clarify points of the new proposal and explains how it will affect the seagoing career enlisted sailor:

Q. Why is the Navy proposing such a change?

A. The Navy currently spends approximately $30 million for an insignificant amount of sea pay to its enlisted members on sea duty. Purpose of the change is to redistribute this same sea pay money to provide meaningful recognition to those sailors in critical seagoing duty.

Q. On what basis does the Navy propose to redistribute the sea pay dollars?

A. The Navy believes that sea pay levels should be directly related to the total amount of sea duty a sailor has served over a career. To accomplish this, Navy proposes to make sea pay award levels directly proportional to a sailor's total cumulative years of sea duty served, with a minimum eligibility of three prior years of sea duty and petty officer status (E-4 or senior).

Q. Why does the Navy propose minimum years of sea pay and paygrade criteria for sea pay eligibility?

A. The minimum three years of sea duty criterion is proposed in recognition that many of our sailors specifically elected to join the Navy in order to serve at sea; not for the extra money represented by sea pay, but for the challenge and adventure of sea assignments. We are proposing the requirement to attain petty officer rank to emphasize that pay for duty at sea is tied to a career commitment on the part of our sailors and also to enhance the attractiveness of petty officer status.

Q. Wouldn't the proposed entitlement criteria cause some members now receiving sea pay to become disentitled, and, if so, isn't this another benefit erosion?

A. No. A "save-pay" provision was included in the plan to insure that personnel now in at-sea billets would not lose their sea pay upon implementation of the new plan. With the save-pay clause, no present benefit has been eroded.

Q. How is the plan relevant to the young sailor?

A. The new plan, when implemented, will not impact on the sailor with less than three years of cumulative experience at sea. The intent of

Proposal Launched

the plan is to show recognition to our career petty officers serving at sea in arduous assignments. However, it is an incentive for a young sailor. If he continues to serve at sea and advance in rate, he knows that there is an added monetary gain for him in the years ahead.

Q. Define the categories of sea duty which determine who is eligible for career sea pay.

A. There are two categories:

Category A: Covers those petty officers who are assigned to units which perform their primary mission at sea—a combatant ship such as a destroyer or aircraft carrier. Embarked personnel in such units will receive sea pay whether the ship is in or out of port.

Category B: Covers those petty officers who are assigned to units which perform their primary mission in port, such as a destroyer tender. When such a unit deploys they would receive sea pay on a month-by-month basis.

Q. Will the new sea pay plan be an incentive for petty officers to remain at sea or volunteer for sea duty?

A. The foremost intent of the career sea pay plan is to recognize those career petty officers who are serving in arduous sea billets approved by the Secretary of the Navy. However, for a young sailor at sea, the extra money can be considered a form of incentive to advance in rate and serve at sea.

Q. When will Fleet sailors in approved billets actually see sea pay dollars reflected in their pay?

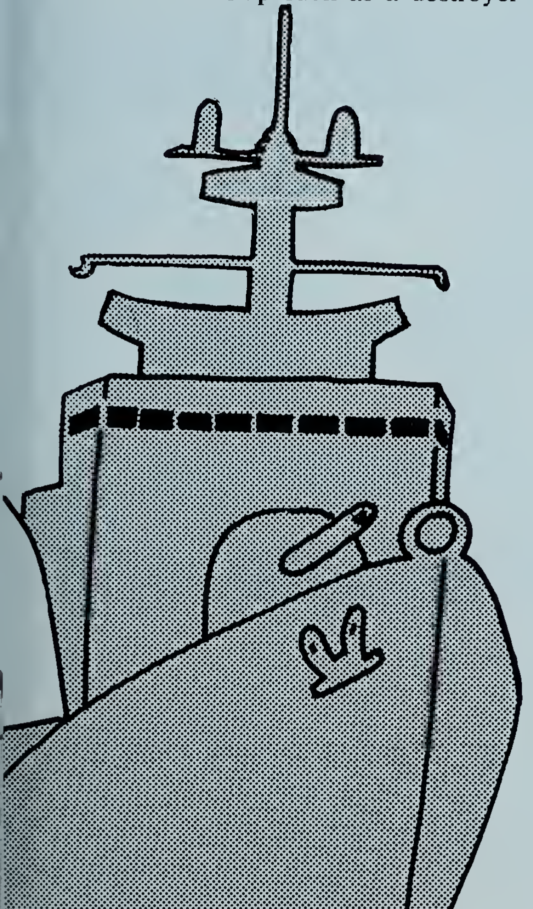
A. That can't be determined now. Congress must approve the bill and until such time as the plan becomes law, it is impossible to say when the plan will go into effect.

Q. Does this plan also pertain to enlisted Marines who serve at sea?

A. Yes, for those who meet the criteria of three cumulative years at sea, who are in paygrades E-4 through E-9, and who are serving in units or staffs designated by the Secretary of the Navy as "truly arduous duty."

Q. Will any aviation units (their personnel) be eligible for sea pay under the new plan?

A. Yes. Those aviation units which deploy in sea going commands, such as squadrons or detachments embarked in carriers or other combatants, amphibious and support ships are eligible. For example, attack squadrons and Lamps helicopter detachments when deployed in ships will be eligible. However, when these same units are operating from shore installations, they would not qualify for sea pay under the new plan. ⚓



NEW PROPOSED CAREER SEA PAY 1978

Cumulative Years Sea Duty	Monthly Rate
OVER 3	$ 25
OVER 5	$ 35
OVER 7	$ 45
OVER 9	$ 55
OVER 10	$ 65
OVER 11	$ 75
OVER 12	$100

Black Americans in the Navy

✱

Black History Week February 12-18

> *". . . Black History Week . . . is much more than the observance of a race and their upward struggle to gain their rightful place in society. It is a time for all Americans to become more fully aware of the individual deeds and achievements of Blacks . . . (who have enhanced) our nation and the United States Navy ."*

J L Holloway
J. L. Holloway III
Admiral, U.S. Navy

✱ *"Black Americans in the Navy" is the cover of a 48—page brochure which has been mailed recently to all Navy commands for use in recognizing the contributions of Black Navy men and women.*

During the War of 1812, Commodore Isaac Chauncey wrote the following to a captain in his command: "I have yet to learn that the color of the skin or the cut and trimmings of the coat can affect a man's qualifications or usefulness . . . . "

Late in World War II, Secretary of the Navy James Forrestal issued a similar statement which made the commodore's observation official Navy policy: "The Navy accepts no theories of racial differences in inborn ability, but expects that every man wearing his uniform be trained and used in accordance with his maximum individual abilities."

Separated by more than a century, these two naval leaders said in writing what all people know in their heart — the color of an individual's skin is not a determinant of ability, integrity or ambition. No man or woman's willingness to contribute, or actual accomplishment, can be discounted because of race.

Throughout more than 200 years of Navy history, Black Americans have served honorably at sea and on shore; they have distinguished themselves under fire and in time of peace. Of course, only the famous are remembered by name, yet those who helped keep our ships steaming and our defenses strong are legion. Though space precludes our listing more than a few, it is appropriate that some of the more outstanding officers, men and women be cited:

(L-R: Ione James, Louis James and RAdm. K. E. Wilson, Jr.)

- Louis James — Naval Sea Systems Command naval architect was one of the original members of the NavSea Deep Submergence group which worked on many projects connected with the certification of submersibles. James received the Navy Superior Civilian Service Award for his work with the McCann Rescue Chambers. He managed the refurbishment and certification of the Navy's four McCann Rescue Chambers.

- Jesse L. Brown — Ensign Jesse L. Brown was the U.S. Navy's first Black aviator. On Dec. 4, 1950, while flying close support for Marines fighting near the Chosin Reservoir, Ensign Brown's plane was downed by enemy gunfire. Brown was posthumously awarded the Distinguished Flying Cross and Air Medal for bravery. The Navy commissioned USS *Jesse L. Brown* (FF 1089) in his honor on Feb. 17, 1973.

- Midshipman Third Class Janie Mines — Was the first Black woman Midshipman to enter Naval Academy, reporting to Annapolis in July 1976. Her younger sister, Gwen, is a member of the class of 1981 which reported July 1977.

- Commander Joan C. Bynum — A 19-year Navy veteran, CDR Bynum recently made history when she became the Navy's first Black woman officer to be selected for captain. She is currently assigned to the Naval Regional Medical Center, Great Lakes.

- Vice Admiral Samuel L. Gravely, Jr. — Was first Black to graduate from a Midshipman School, graduating from Columbia University, N.Y., on Dec. 14, 1944. He was also the first Black commanding officer of a ship when he took command of USS *Falgout* (DER 324) in 1962; was first Black officer appointed to flag rank in June 1971; VADM Gravely attained his third star on Sept. 10, 1976, when he became Commander, U. S. Third Fleet.

- Leonard R. Harmon — Mess Attendant First Class Leonard Ray Harmon gave his life while protecting wounded during a battle against Japanese forces in November 1942. Harmon was posthumously awarded the Navy Cross for this heroic act. The Navy commissioned USS *Harmon* (DE 678) in his honor on Aug. 31, 1943. (*Harmon* was decommissioned on March 25, 1947.)

- George Washington Carver — Founded a new branch of chemistry, called chemurgy, defined as "the chemistry of the industrial use of organic raw materials." However, he is probably remembered most for the diverse products made from peanuts. The Navy commissioned USS *George Washington Carver* (SSBN 656) in his honor on June 15, 1966.

- Dorie Miller — Mess Attendant Third Class Doris (Dorie) Miller manned a machine gun during the attack on Pearl Harbor and reportedly destroyed two Japanese planes. For his actions Miller was awarded the Navy Cross. The Navy commissioned USS *Miller* (FF 1091) in his honor on June 30, 1973. ⚓

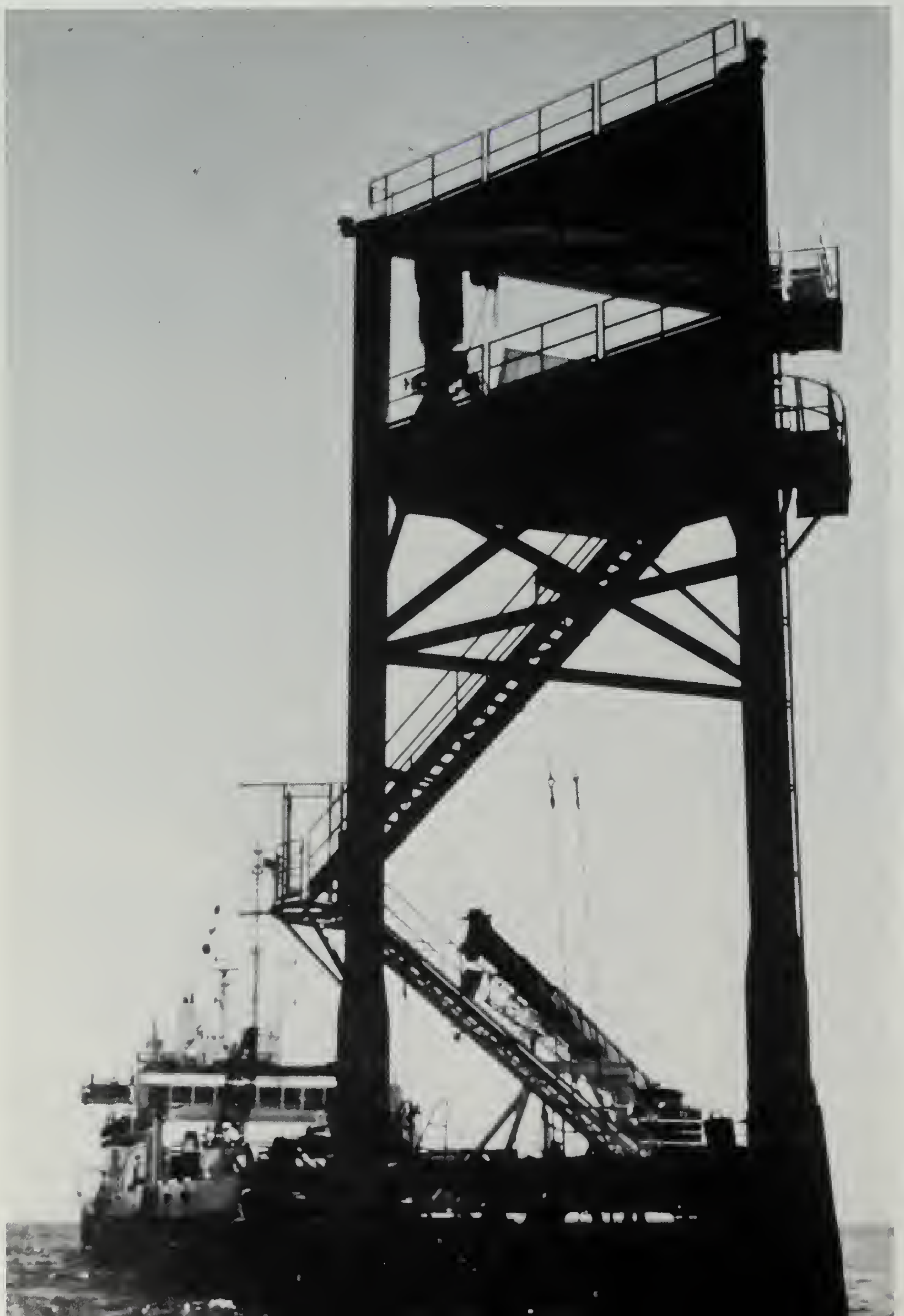
Where Pilot and Computer

BY CATHERINE FELLOWS

The recently completed Air Combat Maneuvering Range off the North Carolina coast is the closest possible approach to actual combat conditions. The only thing missing is the live firing of weapons.

An innovative and cost-effective means to train Navy pilots in air combat, the range is made up of four offshore towers and three land-based towers, each holding an instrument package feeding information directly into a centralized computer.

Photo by LCDR G. Cullison.



During training, a pilot arms and triggers his weapon system just as he would in actual combat. A missile-shaped pod attached to the aircraft electronically simulates his offensive maneuvers, transmitting data through the strategically placed towers to the computer. Whatever the pilot sees through his windscreen, the computer reconstructs for the instructor: aircraft position, altitude, safety conditions, inter-aircraft values, hit or miss results. The instructor can then communicate results and advice to the pilot via radio.

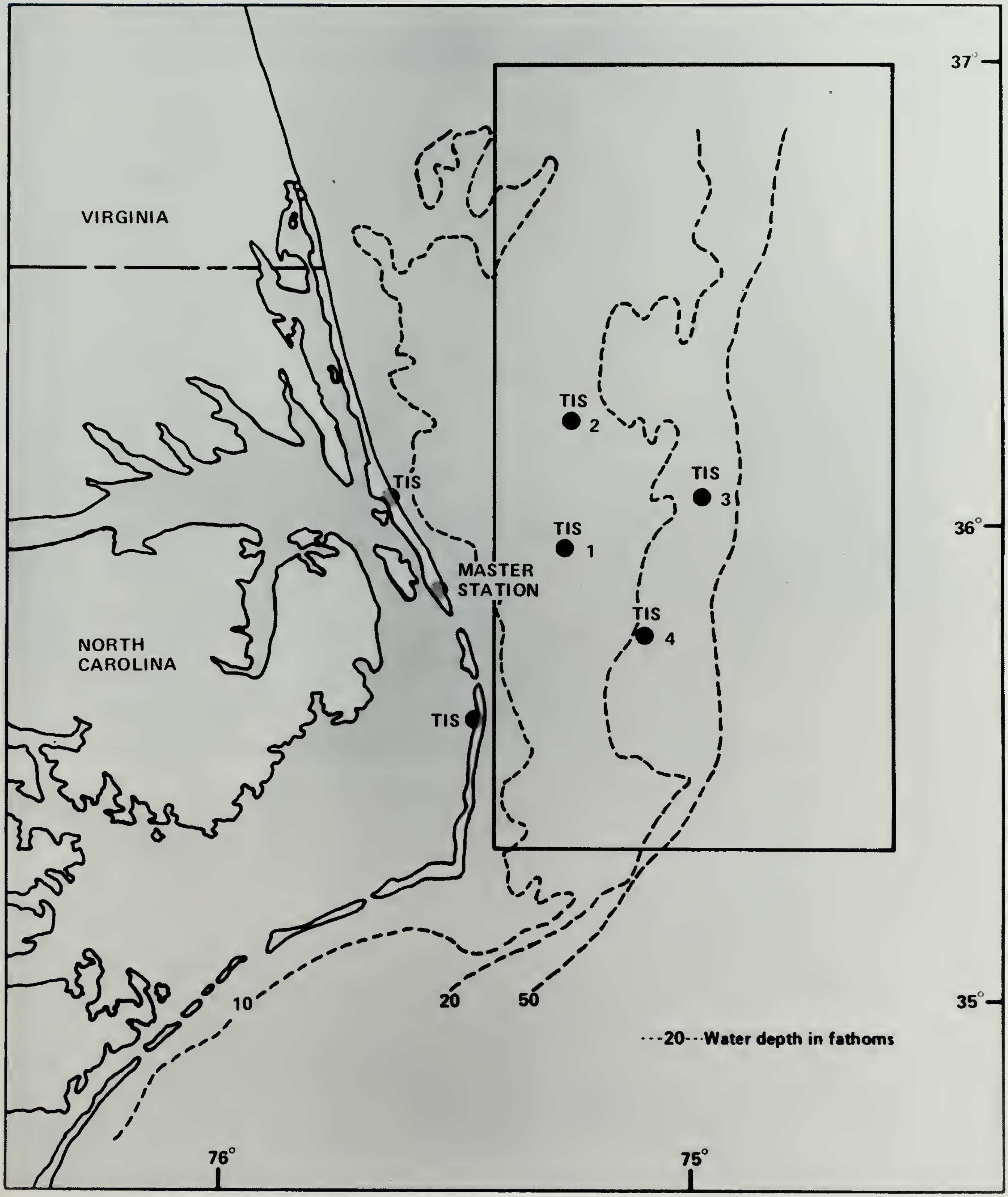
The four offshore towers were erected last summer to avoid adverse weather conditions notorious to the Cape Hatteras area during most of the year. Navy engineers had designed structures which could withstand 62-foot waves, two-to-four-knot currents, 140-mile-per-hour winds and temperatures ranging from freezing to 100 degrees. Lifespan of the towers is 20 years. They are triangular in shape and are anchored in place by steel pilings driven through the hollow legs 250 feet into the ocean floor. They stand in 100 feet of water.

Encompassing a 30-mile circle, the towers are located east of Kitty Hawk, N.C. Three land-based towers are along the outer banks of the coastline.

On the top level of each tower is a solar screen (powered by solar energy), navigational lights, foghorn and the electronic package. The system can track and monitor 20 aircraft over a 1,600-square mile range, up to 60,000 feet.

With this unique air combat maneuvering range, pilot proficiency is expected to double—a visible example of the Navy's ability to use imaginative ocean construction engineering to enhance fleet readiness. ⚓

Team Up


VIRGINIA
NORTH CAROLINA
TIS
MASTER STATION
TIS
TIS 2
TIS 3
TIS 1
TIS 4
37°
36°
35°
76°
75°
10
20
50
---20---Water depth in fathoms

Mail Buoy

First WWII Shot

SIR: Regarding "For the Navy Buff," in the October 1977 issue, you correctly state that the USS *Ward* fired the first shot in the war in the Pacific, but the question was "Who fired the first U.S. shot of World War II?"

As far as most of the world was concerned, that war began in September, 1939, and I can name two vessels that might make claim to priority over the *Ward*. On Oct. 16, 1941, the USS *Kearney* (DD 432) was escorting convoy SC 48 in the North Atlantic when U-boats attacked. *Kearney* made several counterattacks that night and was torpedoed during the middle watch. She was able to make port under her own steam.

If you do not accept depth charge patterns as shots, how about the USS *Salinas* (AO 19)? When she was torpedoed in convoy on a return passage from Iceland on Oct. 30, she settled to her normal load line (she was in ballast). A submarine surfaced and fired three more fish at her which all missed, and *Salinas* replied with her stern gun. She, too, was able to get home. Not so lucky was the USS *Reuben James* (DD 245), torpedoed and sunk Oct. 31.—Philip Chaplin, LT, RCNR (Ret)

Advancement Path

SIR: In your September issue, you stated that the F 1/c to PO2 (advancement) went out in 1926. I entered the Navy in April 1943 and it was very much still in effect. I made F 1/c which paid $78 a month while a deck force PO3 also made $78 a month. As you see, they had the crow (which at Pearl Harbor during the war meant they could stay out an hour later than we non-rated men.) When you got promoted you went to PO2. This was changed in 1944 when all F 1/c were made third class petty officers. I went to MoMM3/c.—W. F. Berry, ENCM, USNR-R.

Photo Credit

SIR: While YN1 Jay Fox was pleased (flabbergasted would have been a more accurate description) to see one of his photos on the inside front cover of September's ALL HANDS, he would have been even more pleased to have received a photo credit for it. However, knowing how easily names can be separated from photos, I am sure the oversight was most unintentional.

For the record, the names of the individuals in the photo are: (top) HM1 "Doc" Hal Dietz, (middle) CTI3 Paul Stander and CTA2 Greg McCombs.—Sharon Shelton Brown.

• *Since we had no record of the photographer of this particular photo, your letter helped solve yet another mystery. Photographs submitted to* ALL HANDS *should always have complete captioning data and the photographer's name and activity firmly attached so that we can give credit where credit's due. Keep those good photos coming.*—ED.

Exchange Catalog

SIR: In the Currents section of the August 1977 ALL HANDS, a reference was made to a mail order catalog put out by the Yokosuka Navy Exchange Mail Order Program. Do you have any information on what merchandise is offered in this catalog and how the program works? Also, is an inactive duty drilling reservist eligible to participate in this program? — DP1 Lofting.

• *The Navy Exchange Yokosuka Mail Order Catalog is for use only by authorized customers serving with (or on temporary duty with) U.S. Forces or designated Government organizations stationed outside the continental United States (except Hawaii). Essentially, the catalog contains a selection of foreign merchandise items that are normally available on the local economy overseas. The purpose of the catalog is to provide overseas personnel with a single, reliable source for obtaining this merchandise at the lowest practical price.* —ED.

Another Runner

SIR: Regarding your article in the Bearings section of the August '77 issue on Marine Captain T. P. Carney's finishing time and place in the 1977 Boston Marathon: I also ran the 1977 Boston Marathon and officially finished in 2 hours, 57 minutes and 4 seconds placing 729th.

The official record book of computerized results has Thomas P. Carney placing 1,735th with a time of 3 hours, 26 minutes and 5 seconds. There were so many service people that finished ahead of me in super times that I did not think my finish was anything to write about.—R.B. Hoffman, LT, USN.

Maryland's Own

SIR: I saw on the inside front cover of your September issue a picture taken aboard the USS *Constellation*. Being from Maryland, I grow a little weary of hearing only about the USS *Constitution*. I even had to correct my naval history teacher in boot camp (although I did so very carefully) when he told us the *Constitution* was the only one of the six original still afloat.

If the facts be known, I think you'll find that the USS *Constellation* had just as glorious a career if not more so than the USS *Constitution*. S.L. Schottroff, ETR3, USN.

Reunions

- USS *Cloues* (DE 265). Reunion June 20-22 at Sheraton Inn, Winston Salem, N.C. Contact Robert S. Summers, Rt. 3, Box 498, Wilkesboro, N.C. 28697.
- *PT Boats*. Reunion planned. Anyone who served in PT Boats, Bases, Tenders, Supply Communications, Casu Units, or were in any way connected with PT Boats. Contact J. M. "Boats" Newberry, P.O. Box 109, Memphis, Tenn. 38101.
- USS *Knapp* (DD 653). Reunion July 6-8, Hickory, N.C. World War II shipmates and those who served aboard in later years. Contact Francis Wickenheiser, 1109 Pleasure Rd., Lancaster, PA. 17601.
- *Naval Air Transport Service*. Reunion planned in 1979. All VR Squadrons, Active and Reserve. Contact Capt. Alvin May, Jr., 1015 West South Ave., Independence, Mo. 64050.
- *U.S. Naval Group China Veterans/* Sino-American Cooperative Organization. Reunion June 15-17 at South Seas Plantation, Captiva Island, Fla. Contact CDR R. L. Dormer, P.O. Box #9, Sanibel Island, Fla. 33957.

USS O.H. PERRY Commissioned

The lead ship of a new class of frigates—designed to protect replenishment groups, amphibious forces and merchant shipping—joined the fleet at Bath, Me., on 17 December. *USS Oliver Hazard Perry* (FFG 7) was delivered by Bath Iron Works 30 days ahead of schedule, with no unresolved contract or technical issues to blight the commissioning ceremony.

Principal speaker at the event was Chief of Naval Operations Admiral James L. Holloway III, who stated that *Perry* "...represents, in the best sense, the business-like cooperation that is possible between Navy and civilian shipbuilders."

Also present was one of the ship's co-sponsors – Mrs. Morgan Hebard, great-great-granddaughter of the ship's namesake, Commodore Oliver Hazard Perry. The commodore is best remembered for his defeat of the British Fleet on Lake Erie in the War of 1812. *Perry's* other sponsor was Mrs. Donald Rumsfeld, wife of the former Secretary of Defense.

Powered by gas turbines which enable her to get underway in minutes rather than hours, the 3,600-ton *Perry* is 445 feet long with a beam of 45 feet. Capable of operating at speeds in excess of 28 knots, the new frigate is armed with surface-to-air and surface-to-surface missiles, a new model 76MM rapid fire gun, anti-submarine torpedoes and two LAMPS helos. She has a crew of 11 officers and 153 enlisted men. (See related story in Aug. '77 All Hands). Photos by Dave Wilson and PHC Richard Pendergist.

Blood, Wine and Water...page 4

ALL HANDS

MARCH 1978

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MARCH 1978 NUMBER 734

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Covers

Front: Aircraft on the flight deck of USS Independence *(CV 62) in the Mediterranean. Photo by PHC Bill Pointer.*
Inside Front: Navy dependents have always been an important part of the Navy family. Photo by J. O. Cooper.
Back: Audie Bransford highlights the career of CAPT Johnston Blakely of USS Wasp *in the War of 1812.*

Chief of Naval Operations: Admiral James L. Holloway III
Chief of Information: Rear Admiral David M. Cooney
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JO2 Davida Matthews
JO2 Dan Wheeler
JO3 Francis Bir
Edward Jenkins
Elaine McNeil

Currents

Purchase of Bell Bottoms Authorized for May ● Chief of Naval Operations Admiral James L. Holloway III has announced that any Navy men E-1 through E-4 attached to fleet units who were not selected to participate in the first phase evaluation of new fabrics for the traditional jumper-style uniform will be authorized to purchase and wear the new uniform in May when the fleet evaluation program for the uniform begins. The approximately 20,000 fleet sailors selected to wear test the new blues will be issued their uniforms without charge. Shore-based personnel and reservists will be able to purchase and wear the uniform beginning in August as more uniforms become available. The new uniform, available in the dress blue version only, initially can be purchased through the Norfolk and San Diego Navy Exchanges or through the Navy Exchange mail order system. Eventually the jumper uniform will be available in all Navy Exchanges. The uniform will be manufactured in the 15-ounce blue serge material currently used in the winter weight service dress blue uniforms. The white hat will be of polyester blend. Rating badges and service stripes will continue to be the current all-embroidered style. Wearing of jumper style uniforms made of melton or any other material will not be authorized. Personnel should ensure that garments purchased are certified for wear according to Navy specification. Uniform manufacturers upon their request will be certified by the Navy to produce the authorized uniform. The uniform is optional and may be prescribed for all occasions where service dress blue is worn, including liberty purposes. Manner of wear shall be as directed in U. S. Navy Uniform Regulations. Service dress white jumper will be authorized at a later date after new materials have been adequately tested in the fleet.

U.S. Navy Memorial Foundation Holds Founders' Meeting ● The United States Navy Memorial Foundation held its Founders' meeting on Jan. 26, 1978, in Washington, D.C. The Foundation is a non-profit organization dedicated to erecting a monument in the Washington area to all Navy personnel, living and deceased, and to establishing a scholarship fund for the children of current and former Navy personnel. The Memorial Foundation will work closely with the National Endowment for the Arts to select a distinguished art committee, a prominent sculptor, an historic monument design and a suitable location for the memorial. Former Secretary of the Navy J. William Middendorf III will serve as Chairman of the Foundation. Other Board members include former Navy Secretary John Warner, former Chairman of the Joint Chiefs of Staff Admiral Thomas Moorer, and former CNO Admiral Arleigh Burke.

Fifteen Women Enter Flight Training in FY 79 ● The Navy will enroll 15 women in its flight training program during FY 79. Selection of women candidates will be made by a single selection board in July 1978. Women officers who desire to be considered for flight training and meet the requirements contained in BuPersMan 6610360 should submit their applications to the Chief of Naval Personnel (Pers 433E) before June 30, 1978.

Nautilus Memorial Study Authorized ● A study to consider preserving USS *Nautilus* (SSN 571), the world's first nuclear powered warship, as a monument and placing it on public display at the U.S. Naval Academy, Annapolis, Md., has been authorized by Secretary of the Navy W. Graham Claytor Jr. The inactivation of *Nautilus* was disclosed on January 23 by the Defense Department as part of the FY 79 defense budget. Any plan resulting from the study will be submitted to Congress for approval.

Europe Mail to Go Through Norfolk ● The Navy and the U.S. Postal Service (USPS) have taken combined action to restore a smooth flow of mail to and from Navy units in Europe. Most mail bound for Navy units in Europe now is being processed through Norfolk, Va., instead of the Fleet Post Office in New York where both incoming and outgoing mail are backlogged. A message issued by USPS last month directed its dispatch centers around the country to route the mail to the Fleet Postal Unit at the Norfolk Naval Station. The directive covers first class and registered mail. Mail from the northeast section of the country, including New York, will continue to be processed through the Fleet Post Office in New York. The temporary rerouting of other mail through Norfolk will continue until the New York branch can return to normal operations. Mail service through New York had been slowed since before Christmas because of several factors, including the heavy holiday load. The situation was aggravated by a severe snowstorm which hit New York on January 20, and deteriorated further, following a crippling storm which temporarily closed down the city. The temporary measure does not alter recipient addresses. Mail should continue to be addressed to FPO New York addresses.

New Phone System for BT, MM Detailers ● In a continuing effort to improve communications with detailing communities, a rotary phone system has been installed in the Bureau of Naval Personnel's BT/MM detailing shop. Because the BT and MM ratings are large, members have had difficulties, in the past, reaching their detailers. This new system, which doubles the number of lines, is part of an improvement plan to give all detailing communities similar equipment. The new rotary phone numbers for BTs and MMs are – Autovon: 224-4550; Commercial: 202-694-4550. The detailer phone numbers for nuclear power MMs and BTS who are submarine designated remain the same. The numbers are – Autovon: 224-1016/1227; Commercial: 202-694-1016/1227.

New role for an old plane

STORY BY ART SCHOENI
PHOTOS BY PAUL BOWER

A weatherbeaten A-7C *Corsair* II sporting the yellow diamonds of VA-174 lands at Naval Air Station, Dallas. Taxiing onto the parking ramp at Vought Corp., the pilot, Lieutenant Commander Bill Goesling, climbs out and hands the plane's logbooks to a flight line inspector.

The airplane was returning to Dallas, where it was built nearly 10 years before. This *Corsair* is one of 60 A-7s now being remanufactured into two-seat TA-7C trainers under a Navy program. (A total of 36 A-7Cs and 24 A-7Bs are being completely disassembled, inspected and rebuilt as trainers). This will give them eight to 10 more years of life in the fleet. The remanufacturing program is well underway at Vought (a subsidiary of LTV). NAVPRO (Naval Plant Representative Office) Dallas is the cognizant contract administration office at Vought and is responsible to see that Vought produces for the government what was contracted.

The conversion program is the first time the Navy has literally cut an existing airplane in half with a saw and remanufactured it into a new aircraft.

The Navy has two reasons for converting the 60 early *Corsairs* into two-seat trainers:

- It saves a lot of dollars; a completely reworked two-seat *Corsair* II trainer goes for $2 million per aircraft, as against $7 million for a new one.
- Under the present training doctrine, transition from a different type of airplane to an A-7 requires that the transition pilot be chased by an instructor pilot in a separate A-7.

Putting the instructor in the back seat of the same airplane cuts the fuel cost in half and requires fewer total aircraft for the training mission. TA-7Cs replace A-7Es in the training squadrons on about a 2 for 3 ratio.

The quality of training also is improved. Having an instructor in the back seat allows him to observe the activities of the transition pilot and offer constructive comments on a real-time basis.

LDCR Goesling was wearing two hats when he flew the A-7C from Cecil Field in Florida to Dallas. As assistant naval plant representative under Commander Jim Beam, he plays a part in supervising the personnel assigned to the NAVPRO. As a naval aviator, with 4,000 flight hours, he occasionally steps in to keep flight schedules moving.

In this case, he had ferried a new A-7E to Cecil and brought back a war-weary A-7C for conversion into a two-seat trainer. The *Corsair* had seen both Vietnam combat duty and Mediterranean deployments with two different squadrons. The last tour was with a VA-86 *Sidewinder* insignia on its tail. Completing its last deployment it was transferred to VA-174, hence the yellow diamonds.

The Navy has bought nearly 1,000 of the A-7 *Corsair* IIs since the first one flew in 1965. In Vietnam, the light attack bombers operated from carriers in the Gulf of Tonkin flying more than 100,000 combat missions. Together with the Air Force A-7Ds, they dropped more than 200,000 tons of bombs and rockets.

The 60 planes being converted come from fleet squadrons. The aircraft have accumulated many flight hours and present a colorful variety of squadron insignia as they arrive.

JET
DANGER →
INTAKE

The new TA-7C configuration.

It takes a year to disassemble an A-7 and remake it into a trainer. Day-to-day guidance and inspection at Dallas is done by NAVPRO's five officers.

There are 106 civil service and five military personnel who carry out a multitude of duties in the NAVPRO. They administer contracts, monitor flight test programs, evaluate contractor quality and engineering systems, monitor cost-control management, and monitor the contractor who manages all government-owned equipment.

Similar NAVPRO organizations are located at the aircraft and aircraft engine facilities of Grumman, General Electric, Lockheed, McDonnell-Douglas, Sikorsky and Rockwell. Each NAVPRO is a field activity of the Naval Air Systems Command.

The two-seat *Corsair* II retains most of the physical characteristics of the original A-7. It is 34 inches longer and four inches higher. The lengthening resulted from insertion of the second cockpit. This additional length consists of a new 16-inch section in the forward part of the fuselage and a stretch of about 18 inches at the trailing edge of the wing.

The elevation of the rear seat provides the instructor with good visibility in all directions. The extra height resulted from the slight banana-like fuselage curvature necessary for tailpipe clearance on takeoffs and landings.

The TA-7C retains the same ordnance carrying capability as the A-7E except that it carries less 20mm ammunition. It also has the same computerized navigation and weapons delivery system, including the head-up display (HUD) and projected map display, as the A-7E.

The HUD is a relatively new feature in Navy aircraft. By means of letters and symbols, the pilot can get flight information as he watches the target through his gunsight. It enables him to fly the most accurate course to the drop or firing point. In the TA-7C, an onboard closed-circuit TV system allows the instructor to monitor the HUD presentation of the student in the front cockpit.

The instructor does not have all of the weapons control switches in his cockpit. However, lights indicate when the student has moved a switch which would enable a station to release bombs or fire rockets/missiles.

Instrument hoods can be installed over both cockpits for instrument training. Pilots have previously received instrument training in the TA-4 *Skyhawk*. All training in the TA-7C should enhance the overall proficiency of all A-7 pilots.

The final "quality check" on the aircraft is accomplished by the flight test division. Its director, Lieutenant Commander Fields Richardson, monitors all test flying including that accomplished by Vought test pilots, all of whom are graduates of Navy or Air Force test pilot schools.

Vought test pilots fly each airplane until all systems are operable. At this point, the airplane is presented to the Navy. The Navy's team then flies the airplanes to insure they meet military specifications, thereby insuring a combat capable weapons system for the fleet. Each airplane is flown at altitudes ranging from 200 to 45,000 feet and from stall to supersonic speeds.

The Navy selected the TF-30-P408 non-afterburning turbofan engine for the trainers since the A-7Bs and A-7Cs from which they were converted already were equipped with that engine. The TF-30 is lighter than the TF-41 used in the A-7E, thereby partially offsetting the increased weight caused by the addition of a second cockpit.

In a national emergency, the TA-7C—whose service life is expected to be about 10 years—could very easily be outfitted with the additional equipment required to make it combat-capable. Deliveries of the 60 completed TA-7Cs are expected to run into the middle of 1980. ⚓

Turning the A-7 Corsair into a two-seat trainer

STORY BY ART SCHOENI
PHOTOS BY PAUL BOWER

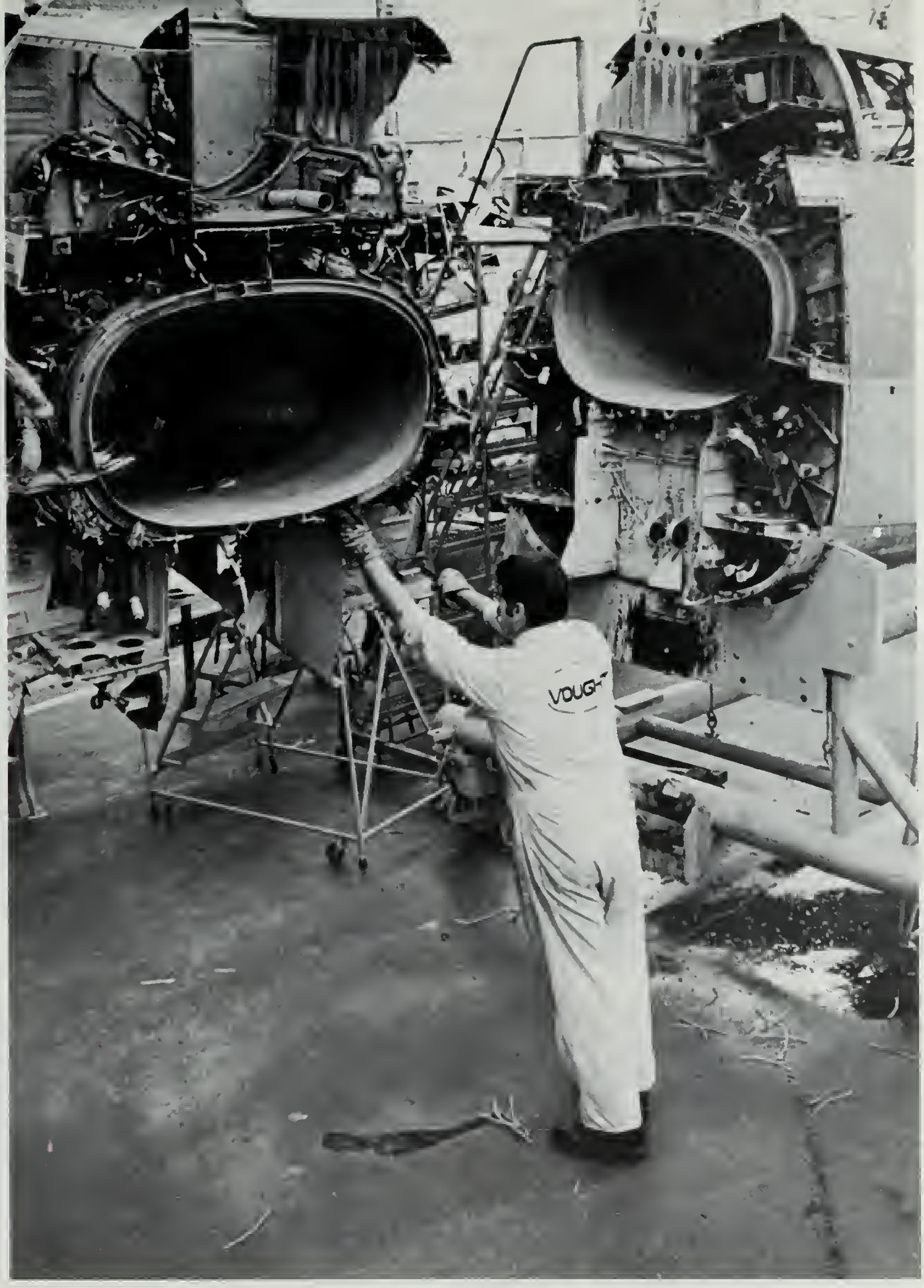
Let's look at what happens to an airplane when it arrives at Dallas at the start of its year-long transition from a single-place A-7C aircraft to a two-seat TA-7C trainer.

As soon as the engine stops, the ejection seat is secured so it cannot be fired accidentally. Fuel is removed from the tanks and the systems are purged and treated with a preservative. After being towed into a hangar, its engine and ejection seat are removed.

A team of Navy and company inspectors immediately inspect and inventory the airplane. All inventoried equipment is then removed and sent to various laboratories for inspection and repair as necessary (IRAN). Additionally, everything else useable is cleaned, labeled and stored in bins for installation as the airplane is reassembled.

Next, the aircraft goes to the paint hangar where all paint is removed from the outside skin. It is blasted with a special chemical paint remover so that corrosion can be more easily spotted. This "vacuuhoning" technique is new. All waste from this process is collected rather than being allowed to flow into the sewage system, thus reducing pollution.

The airplane then moves into the disassembly area where it is put into a cradle and the landing gear and wing are removed.



Next step is actually to saw it in two right behind the cockpit. A Skil-type saw chews through the fuselage skin, electrical wiring and hydraulic tubing. Anything to be salvaged and reused is stripped and stored. Then a thorough corrosion inspection is conducted. Any components showing wear are rebuilt or new parts substituted. Judgment of NAVPRO inspectors goes into every step of the operation.

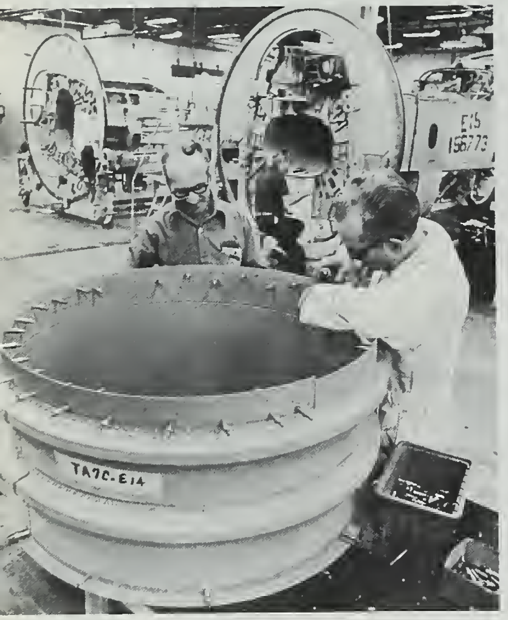
Engines are sent to Norfolk. Other components—ejection seats, landing gear, hydraulic actuators—are sent to the Naval Air Rework Facility at NAS Jacksonville for repair or for their refurbishment.

NAVPRO decides which items can and must be scrapped or repaired, through a joint task control board of Vought and Navy people.

Scrapping is held to a minimum—most of the avionics systems arrive in good condition, but some sets need readjustment, fine tuning or updating. The air conditioning heat exchanger is one item which receives a very critical examination, since the scrap rate is high. Windshield panels frequently are scratched and must be scrapped.

The entire nose section of the A-7, once the instruments and other fittings are salvaged, is discarded. An entirely

Below: The aft fuselage of the Corsair is lengthened by 18 inches. Bottom: In final assembly, the wing is refitted to the two-seat fuselage.



Left: An A-7 is blasted with a chemical paint remover.

Below: NAVPRO and Vought personnel inspect wings during rework.

new forward section incorporating the two seats is built on the final assembly line. The wing remains out by the flight line where a new fairing is installed to streamline the fuselage into the second cockpit. The wing's wiring is the only wiring in the entire airplane that is left intact.

One of the most noticeable new features of the two-seater is a side-opening canopy. Normal ejection is through the canopy. Emergency ground egress is achieved by use of a shaped charge explosive which shatters the plexiglass in an emergency.

Another new feature of the *Corsair* II trainer is a parabrake installed in a housing atop the tailcone under the rudder. This installation could be used in emergencies or for short field landings.

After the new nose section with two cockpits is manufactured, it is mated to the reworked fuselage and wing. Navy and Vought inspectors watch the operation closely. The engine, not necessarily the same one that was in the aircraft originally, is installed and an engine run is performed on the ground. Ejection seats are installed. A complete weapons delivery check is conducted. The fuel system is checked, pressure is tested and a complete operational check is made.

After these things are done, the airplane goes back to the paint hangar for a new paint job because the original stripping removed the paint down to bare metal. It will return to the Navy with a regulation paint job, but without squadron letters or insignia. NAVPRO inspectors get back into the airplane again to verify company systems operational checks and to okay the seat installations.

The TA-7C then is ready to have its electrical and hydraulic operations checked preparatory to its first flight by two Vought test pilots.

Company test pilots then fly the remanufactured airplane for up to three hours, giving it a complete systems check in both cockpits. It then is ready for NAVPRO flight test pilots to run their acceptance flights. Everything has to be in good working order—engine, seats, landing gear, electronics, avionics and hydraulics. Navy and company cooperation is close and constant to make sure the pilots in the fleet get the best possible airplane to fly.

A group from the Naval Air Test Center (NATC) at Patuxent River, Md., is to conduct an extensive test of this new model airplane, known as the Navy Technical Evaluation (NTE). This test, which all new airplane types and models must pass before acceptance for fleet use, is to be conducted in Dallas.

The second major hurdle is the evaluation by the Board of Inspection and Survey (BIS). While the NTE requires approximately four weeks and ensures that the airplane performs as it should, BIS trials get down to the "nitty gritty" details of ensuring that the airplane meets every specification to the letter; thus BIS trials are conducted at NATC and require about two months.

While BIS trials are going on, the two-seat trainers will begin going to VA-174 at Cecil Field in Florida and VA-122 at Lemoore in California for operational training use. ⚓

Techniques for Successful RECRUITING

BY JOCS BILL WEDERTZ

Successful Navy recruiters invariably possess three important attributes: they relish the challenge; they view monthly goals as minimum, not maximum, acceptable standards; and they are enthusiastic about the role they play in the Navy. All are confident professionals, willing to accept nothing less than their best.

Eight of these outstanding Navy recruiters—selectees for Recruiter of the Year (FY 77)—and their families were guests of honor in award ceremonies held in Washington, D.C., in late January. Top honors went to Data Processing Technician 1st Class Charles W. Krahn Jr., Navy Recruiting Command's Area Three, who was advanced to chief petty officer.

Seven runners-up were: Aviation Machinist's Mate (Jet Engine Mechanic) 1st Class David T. Warmkessel, Area One; Fire Control Technician (Surface Missile Fire Control) 1st Class William J. Hallmark, Area Four; Electronics Technician (Communications) 2nd Class Joseph V. Bruno, Area Five; Engineman 1st Class Shawn T. Kolstad, Area Seven; Fire Control Technician (Surface Missile Fire Control) 1st Class Daniel J. Petz, Area Eight; Aviation Structural Mechanic (Hydraulic Mechanic) 1st Class Robert F. Baxter, Air Reserve; and Master Chief Yeoman Frederick C. Der Baum Jr., Surface Reserve.

Each Recruiter of the Year (ROY) is an individual; each has his own unique way of doing the job and assessing rewards.

Street Walkin', School Talkin'

Recruiter of the Year DPC Krahn is articulate and self-assured, confident in his ability to recruit top-quality young people and confident, too, in the product he sells—a Navy career. He is the recruiter-in-charge of the three-man Ocala, Fla., station. During FY 77, his recruiting efforts reaped 109 Navy recruits—210 percent of his assigned goal.

"I was a recruiter in Orlando, Fla., for two months before coming to Ocala in August 1975," Krahn said. "By September, I was on my own."

Unemployment was high in Ocala and it should have been rich in potential recruits, but people weren't enlisting. What was needed, Krahn decided, was an all-out campaign to educate local residents about the sea service and make them aware of the outstanding opportunities inherent in a Navy career. At least part of his efforts were influenced by his commanding officer Commander Charles S. Cornett Jr., NRD Jacksonville, who believes in "school talkin' and street walkin'."

"Once I started telling people about scholarships, the Naval Academy, and other educational opportunities, the ball started rolling," Krahn said.

More important than talking programs, Krahn soon discovered, was showing the uniform. He showed up everywhere—schools, gas stations, retail stores—and placed "take-one" racks of recruiting materials wherever he could. "I've got a pretty good reputation out there now," Krahn said. "That's all it takes."

Often devoting 18 hours a day to recruiting duties, Krahn is totally involved in community affairs. He formed an Educator Action Council composed of local vocational and guidance counselors. He frequently invites top high school seniors and their teachers to tour the numerous naval facilities in Florida.

Acting as a resource material instructor in local schools, he has established rapport with most teachers and students. He took the CNO Sea Power presentations and adapted them for use in sociology, environmental sciences, civics, Americanism *vs.* Communism, and history classes he teaches on an

Rebekah Krahn places a chief petty officer's hat on her husband, Chief Data Processing Technician Charles Krahn, Navy Recruiting's Outstanding Recruiter of the Year. Chief Krahn was meritoriously advanced by Admiral James L. Holloway III, Chief of Naval Operations (right), during ceremonies in Washington. Photo by PH1 A. Watkins.

average of once a week in various schools throughout his district. These "extra" activities, no doubt, help account for his being able to beat all other service representatives in the area.

Krahn, at 33, is a 12-year veteran; he's married and has two young daughters.

Getting the Best for the Navy

During ADJ1 Warmkessel's first two years on recruiting duty he averaged five new contracts a month. In FY 77, he raised that average to 9.08, accounting for 109 new sailors from the Philadelphia area.

In addition to simple hard work, Warmkessel believes that using referrals from community contacts and recruits, and intensifying his recruiting efforts at high schools, accounted for his success. He was the recruiter-in-charge of the NRS at Kensington and Allegheny Ave. during FY 77, an inner-city recruiting station covering about 10 square miles with a population of 157,000.

Warmkessel's approach is honest and straightforward. He encourages applicants who are unsure of what to do to check out all of the services before deciding, of course, to "go Navy."

"It's important that they make their own decisions," Warmkessel said. "I even go so far sometimes as to call another service recruiter and arrange an appointment for a young person. If they're not happy, they'll make everyone working around them unhappy too. I'd rather have a guy happy in the Air Force than unhappy in the Navy."

Warmkessel's strong community involvement is highlighted by his exten-

sive work (about 20 hours each week) as a troop leader with the Boy Scouts. Additionally, he is a volunteer police officer for the New Jersey Marine Police on weekends and an instructor in a local lifesaving course.

A 19-year veteran, Warmkessel is married and has two children, 14 and 5 years of age.

You Have to Do It Better

Unlike the other selectees, who said they did not specifically seek the Recruiter of the Year honor, FTM1 Hallmark said that the nomination was one of his personal goals for FY 77. Of his accomplishment, Hallmark, who is recruiter-in-charge of the Washington, Pa., station, said, ''I've always worked hard to gain a reputation of 'he-does-it-the-best'.''

For him it's a matter of personal pride. Hallmark feels that his job as a recruiter is something that the Navy needs done and ''something which is just as important as when I operated and maintained a missile system aboard ship.''

Beginning his Navy service in August 1964, Hallmark remained on active duty until August 1974. After leaving the Navy he began a construction company and then an electronics firm. Although both were successful, he became dissatisfied because he hadn't completed his Navy career.

''I just felt like I was on leave and ought to be reporting back,'' he said of his two years in civilian life. ''So, I decided to come back.'' His return to Navy life was as a TEMAC recruiter/canvasser. He has remained in that status since June 1976.

Upon reporting to Washington, Pa., Hallmark assessed the area's potential as an ''open marketplace''—a market that yielded 119 accessions during FY 77, 92 of whom were school-eligible enlistees.

Hallmark spends his ''spare'' time helping coach a youth basketball team, serving as adjutant of the local American Legion Post, as a member of the Taylorstown volunteer fire department, and as a scoutmaster for the Taylorstown Cubs. He's also an active member of the VFW post and the PTA. He has five children from 6 to 19; his oldest son is undergoing hospital corpsman training in Pensacola, Fla.

Hey, Dude, What's Happening?

''Good morning. Navy travel and adventure. Joe Bruno speaking. Could I help you?''

Bruno: ''DEP is often the motivating factor that keeps them in school in order to get such-and-such program.''

''. . . Hey, dude, what's happening?''

Although this is not the typical telephone greeting in most recruiting stations, it is perfectly in character for ETN2 Bruno, recruiter-in-charge of the two-man, inner-city NRS in Chicago. Bruno's community consists of about 70 percent black, 25 percent Hispanic and five percent white. During FY 77, he attained 159 percent of his goal; that's 92 new sailors.

Like other ROY selectees, Bruno found that getting his message into the public schools was essential. ''I found

Warmkessel: ''I'd rather have a guy happy and in the Air Force than unhappy and in the Navy . . . we don't need that.''

if you're sincere with the school counselor, if you don't make a pest of yourself, and if you make sure you have an appointment, they are receptive," Bruno said.

"I had to show school counselors that the Delay Entry Program (DEP) is very often the motivating factor that keeps students in school because a high school education is necessary to take advantage of so many Navy programs."

Bruno feels getting out on the street, especially in the summer, is just as important as referrals. Both he and his partner RM2 (SS) Larry Ambrey spend as much time out of the office as possible. When they walk the streets, Chicago people nod and speak, even shout a greeting from across the street. Bruno has firmly established a good reputation both for himself and the Navy. He is married and has a 3-year-old daughter. In his off-duty hours he is pursuing a bachelor's degree in electrical engineering.

Don't Just Look At One Before Buying

"I never figured I'd stay in the Navy," said EN1 Kolstad, "but the more I talk about it as a recruiter, the more I sell myself."

But he's also sold plenty of other young men and women on the Navy—105 of them in FY 77 alone. A lot of people ask how he does it. "By telling the truth, first of all," he says.

It doesn't do the recruiter or the Navy any good to misrepresent things, Kolstad says. As soon as a person gets to boot camp and begins comparing notes, the truth is found out. "And what kind of sailor would we have acquired by lying?" Kolstad said. "He'd probably be walking around mad all the time, never doing a good job—just because he wasn't told the truth right off."

To ensure that his accessions know what they are getting into, Kolstad encourages each to shop around before joining. He tells them that joining the service is similar to buying a new car: you don't just look at one and buy it. You find out where you can get the best deal.

Another believer in goals, Kolstad maintains that they are only the minimum figures to reach each month. He is impressed with the caliber of his fellow recruiters and with many other people he's met since joining the Navy in 1971. "I try to absorb all the good qualities I see in other people," he said. "I'm not like them, I'm still myself, but I listen to advice."

Kolstad and his wife Cheryl enjoy many outdoor activities such as hiking, camping and water-skiing when he can break away from recruiting.

It's Just Like You Said

FTM1 Petz doesn't consider himself a high-pressure recruiter. In fact, he doesn't consider himself that way at all. "I'm a teacher," he said. Assigned to the four-man Glendale, Ariz., station, Petz is credited with putting 99 new men and women in Navy uniforms during FY 77.

"I probably get more satisfaction out of recruiting than anything else I've done," he said. "It just really helps

Secretary of the Navy W. Graham Claytor Jr. congratulates Diana Karchella as her fiance, Fire Control Technician (Surface Missile Fire Control) 1st Class William Hallmark, one of this year's outstanding recruiters, looks on. Rear Admiral E. S. Briggs, Commander, Navy Recruiting Command (far right), shares the greeting. Photo by PH1 A. Watkins.

when the kids come back and say, 'Thanks a lot, I'm really having a great time . . . It's just like you said'."

Petz doesn't believe that everyone should be a recruiter. According to him, a recruiter must be something of an egotist, flexible, and very receptive to people's needs and desires.

Like other ROYs, Petz is very much involved in civic and community organizations. Of particular note has been his work with the Community Action Programs in Wickenburg, Buckeye, and Gila Bend communities. A 10-year veteran, Petz is married and has two sons, 7 and 5.

Petz: "You can't say what your best pitch is because it depends on what the guy wants to buy."

Reserve Recruiter

A recruiter since 1968, Master Chief Yeoman Der Baum began recruiting at Andrews AFB, near Washington, D.C., and sandwiched in some time with the sheriff's office in Savannah, Ga. He came to NRC Charleston, S.C., in 1971. FY 77 marks the third consecutive year that he has been selected as the Surface Reserve Recruiter of the Year. He accomplished 132 voluntary veterans affiliated and 64 USN referrals with 19 enlisting during this past fiscal year. Der Baum's 132 veterans represent 275 percent of his assigned goal.

A Lot Have Been Alienated

AMH1 Baxter feels there is a vast difference between reserve and regular Navy recruiting. Obviously there is a difference in programs, but one other difference surfaces frequently.

"A lot of prospects have already been alienated," Baxter said, "or they feel that a recruiter in the past did them some injustice. During the first enlistment processing, the individual is younger, more receptive.

"When we run into them, though, they want everything spelled out. They want to see it. They want to read it. You've got to constantly prove yourself to each individual you encounter."

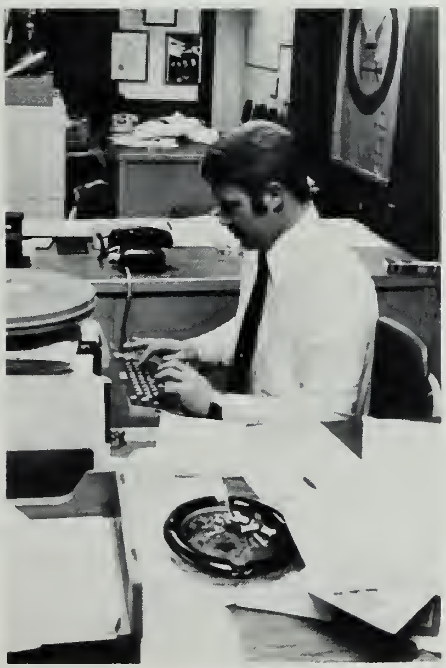
Proving himself has become a way of life for Baxter. Since being assigned to reserve air recruiting in August 1972, he has recruited more than 519 veterans—an impressive average of 13.5 each month. In FY 77, he exceeded his quota by 250 percent, recruiting more than 150 veterans for reserve programs. Baxter's recruiting was accomplished while assigned to the Naval Air Reserve Unit (NARU), NAS North Island, Calif. He has since been transferred to instructor duty at the Reserve VETRO school in New Orleans.

As an instructor, Baxter is not an official recruiter, but it's difficult to hold him down. He's already recruited one person for the TAR program and is "working" several others.

One of Baxter's most noteworthy recruiting efforts was done at home.

Baxter: "The time for manipulating is over. You are better received if you tell the truth."

Kolstad: "We want people who want to be in the Navy—people who want to stick with the Navy—people who like what they do."



Der Baum: "The secret is long hours and plenty of telephone calls."

"I even enlisted my wife in the reserves," he said, "and my sister-in-law, too." Some of the recruiters ribbed him that he must have been really hard up for quota and chided him about putting the kids in next. It doesn't bother him, though—he believes in what he's doing.

Baxter is involved in community activities including VFW, PTA, and in supporting youth programs such as the Bobby Sox League and the Boy Scouts. He and his wife have three children ranging from 8 to 17.

Through their community involvement and personal commitment, DPC Krahn and the seven Recruiter of the Year runners-up are helping to make the all-volunteer Navy a reality. Their highly imaginative, individualistic recruitment programs are proving that honest person-to-person programs can reap rewards for the Navy in the form of top-quality enlistees.

TOP DISTRICT

What does it take to finish the year as the Navy Recruiting Command's top performing district?

According to Captain Jack M. Kennedy, commanding officer of Navy Recruiting District (NRD) Miami, Fla., it takes teamwork.

Without that super team, as the captain calls his group of 120 sailors and civilians, it wouldn't have been possible for NRD Miami to take FY 77 top honors in all three categories: best district in officer programs, best district in enlisted programs, and best district in overall performance and production. Miami was at 184 percent in officer programs and at nearly 114 percent in enlisted programs.

Teamwork, as referred to by CAPT Kennedy, means officer and enlisted recruiters supporting and making referrals to each other.

"There are six key factors," CAPT Kennedy says, "which made our performance in FY 77 possible: communications, teamwork, trust and confidence, a desire to succeed, goal-oriented efforts, and the fact that top management in the command got personally involved."

CAPT Kennedy and his chief recruiter, Master Chief Torpedoman's Mate Ernest L. Brown, made a concentrated effort to improve communications among the field recruiters, and between themselves and the field. They spend much of their time personally bringing recruiters up to date. Critical recruiting information has to be passed along as soon as possible, CAPT Kennedy says.

Numerous reasons which were cited by the captain could have contributed to failure instead of success. Civilian unemployment during the period fell from 13.8 percent to 8.6 percent, much of the Florida population is retired, and a great many Spanish-speaking people are not U.S. citizens.

"You also have Florida's incredible weather, a positive factor for the state, but one which can become negative when talking about leaving 'to see the world'," CAPT Kennedy said.

In spite of these barriers, NRD Miami did succeed. The district enlisted over 2,500 new sailors in FY 77 and had an additional 400 persons enrolled in the Navy's Delayed Entry Program (DEP). The quality of the recruits was equally impressive – 83 percent were high school graduates.

Others who played a major role in Miami's accomplishments include the executive officer, LCDR Harlan W. Woodward; LCDR James E. Kirkendall Jr., former officer programs officer; and LT Kenneth W. Caldwell. Also responsible for the program's success were the district's zone supervisors Senior Chief Aviation Structural Mechanic Floyd E. Harden and Senior Chief Engineman Robert W. Eichman, and the district's top recruiter Chief Interior Communications Electrician (SS) Jose A. Cardenas. ⚓

A death defying tale

Surgeon General of the Navy, Vice Admiral W. P. Arentzen sent a letter in September to all Medical Department officers stressing the need to curtail self-destructive behavior among Navy people.

"One of the principal forms of self-destructive behavior among the personnel for whom we care is cigarette smoking," wrote the admiral. ". . . the control of cigarette smoking alone could do more to improve health and prolong life in developed countries than any other single action in the field of preventive medicine."

The admiral stressed that health care professionals must encourage the development of programs which will decrease sickness and premature death caused by smoking, obesity, drug abuse and alcoholism, among other abuses. Consequently, Admiral Arentzen stated, the programs will not necessarily be designed to discourage cigarette smokers. He said the programs are meant "to encourage them (smokers) not to affect adversely their own well-being and that of their families and shipmates."

The admiral stressed that physicians and other health care professionals should set the example by not smoking themselves or displaying other forms of self-destructive behavior. Especially, professionals should behave in a manner consistent with the knowledge that smoking is a health hazard.

The following statement issued by the U.S. Department of Health, Education and Welfare/Public Health Service accompanied the Admiral's letter and adds credence to his beliefs. It is reprinted here for the benefit of all hands.

Effects of Smoking on Health

A World Health Organization (WHO) Expert Committee recently reaffirmed a statement released in 1970 concerning the effects of smoking cigarettes and health. It states that "smoking-related diseases are such important causes of disability and premature death in developed countries that the control of cigarette smoking could do more to improve health and prolong life in these countries than any single action in the whole field of preventive medicine." The specific effects of smoking, as outlined by the WHO Committee, are summarized below:

LUNG CANCER: The increase in lung cancer mortality in those countries where cigarette smoking has been widespread continues without interruption. In some countries, such as the United Kingdom and the United States, there is a leveling-off of mortality rates among men under 60 years of age, for whom cigarette consumption reached a plateau 20 years ago. In women, whose cigarette consumption has been rising rapidly in the past 30 years, lung cancer mortality continues to rise at an increased rate. Mortality rates from lung cancer are 10 times greater in smokers than in persons who have never smoked. Cessation of smoking reduces this differential gradually so that after 10 years the mortality rate for these ex-smokers approaches that for persons who never smoked. This indicates that widespread cessation of smoking would rapidly reduce lung cancer mortality.

In the United States smoking was considered to be responsible for 68,000 of the estimated 84,000 lung cancer deaths in 1976. Lung cancer risks increase directly with the number of cigarettes smoked every day, total lifetime number of cigarettes smoked, and depth of inhalation. Lung cancer is also inversely related to age: the younger one starts smoking, the greater the risk of disease. The use of filter tips and low-tar content cigarettes has been shown to reduce slightly the risk of developing lung cancer; the risk is higher than that in nonsmokers, however.

BRONCHITIS AND EMPHYSEMA: Extensive studies in a number of nations confirm that pulmonary function of cigarette smokers is impaired in every known respect when compared to nonsmokers. The prevalence of cough and expectoration in both men and women is closely related to the number of cigarettes smoked; these symptoms usually abate once a person stops smoking. Recurrent episodes of respiratory infection, associated with this excess secretion of mucus, are more frequent in cigarette smokers than in nonsmokers. Studies demonstrate that cigarette smoking is responsible for approximately 70 percent of chronic bronchitis and emphysema cases. Death rates from respiratory diseases are higher in smokers than in nonsmokers, accounting for about 25,000 deaths each year. When young patients stop smoking, pulmonary function may return to normal. Even in persons with moderately severe obstructive disease, stopping smoking may result in striking improvement in labored breathing and cough, with some improvement in pulmonary ventilatory function.

CORONARY HEART DISEASE: The most important specific effect that smoking cigarettes has on health is the development of premature coronary heart disease (CHD). Cigarette smokers have a significantly higher risk of CHD morbidity and mortality. Long-term epidemiologic studies of healthy populations confirm that a cigarette smoker is more likely to have a myocardial infarction and to die from CHD than a nonsmoker. Cigarette smoking is one of the major risk factors for CHD and acts in combination with elevated blood pressure, elevated serum cholesterol and other risk factors.

Heart disease caused 648,540 deaths in the United States in 1975. Cigarette smoking is considered responsible for approximately 25 percent of these deaths. Stopping smoking and controlling other risk factors can reduce morbidity and mortality of CHD.

OTHER CANCER: In addition to developing lung cancer, cigarette smokers have a significantly higher rate of cancer of the larynx, pharynx, oral cavity, esophagus, pancreas, and urinary bladder. Pipe and cigar smokers have elevated risks of developing cancer of the oral cavity, pharynx, larynx, and esophagus when compared to nonsmokers.

PREGNANCY: Mothers who smoke cigarettes during the second and third trimesters of pregnancy have been found to have babies with a lower average birth weight than babies of nonsmoking mothers. This effect is probably the result of higher levels of carboxyhemoglobin in the fetal circulation. An increase in perinatal mortality has been observed in babies born to smoking mothers, particularly when other factors which affect perinatal mortality exist. Stopping smoking is recommended during pregnancy. ⚓

Oceanographic Research Tower

Everything from Sound Refraction to Purple, Hinged Scallops

STORY AND PHOTOS BY
JOHN YONEMURA

As the morning fog rose from Mission Beach, just north of San Diego, an unusual-looking structure came into view on the horizon.

"What is that thing out there?" asked a young surfer straddling his bright green board. "Heck, I don't know," answered his companion.

A mile offshore, rising 13 meters out of the water, stands the Navy's oceanographic research tower. Since it was erected in 1959, it has been the site for experiments which are enabling the Navy to make better use of the sea.

"It's surprising how many San Diego people don't know what the tower is," says Dale Good, head of the Naval Ocean Systems Center's (NOSC) Ocean Measurements Branch. Involved with the tower since 1962, he coordinates different projects conducted at the site.

Because of the importance to navigation (surface and subsurface), transmission of sound and longevity of underwater equipment, many studies have been conducted at the tower on water motion, sea temperature, sea chemistry, biology, seafloor topography and geology, and the testing of experimental materials and equipment.

The tower's location was not selected arbitrarily. Directly off Mission Beach in 17 meters of water, it has an unobstructed exposure to the open ocean.

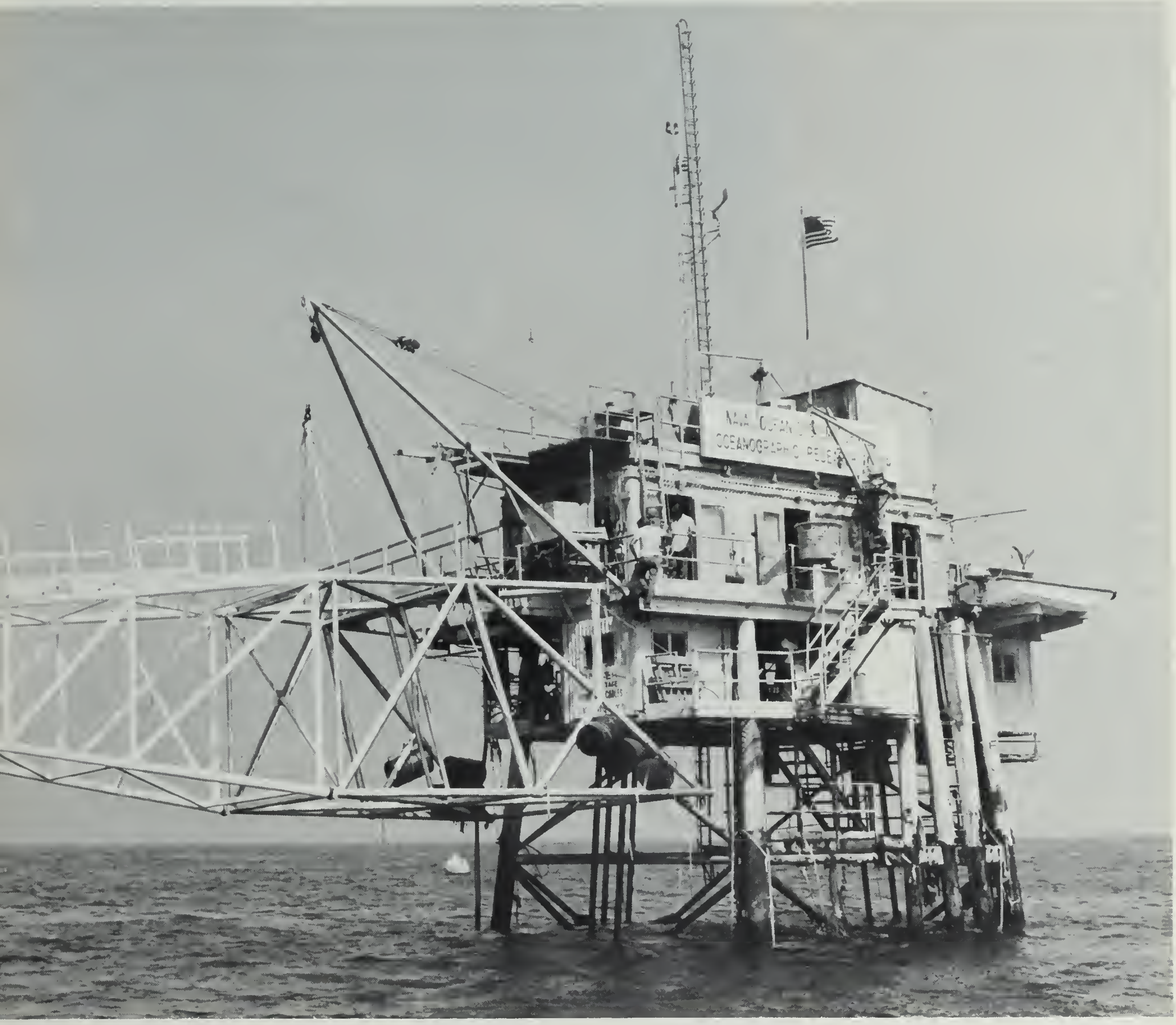
"If we went even a few miles north or south, we would have rocky terrain and a lot of kelp. This would adversely affect our experiments," explains Good.

"The tower facility itself has really expanded over the years," he continues. "When it was first put into place, it had only one room. That one room was immediately found to be inadequate and has now expanded to six rooms on three levels."

The tower is permanent, and, as such, has several advantages over an anchored vessel trying to conduct the same studies. For one thing, the tower is accessible. It's only 30 minutes from NOSC—15 minutes by car to the Mission Bay pier and another 15 minutes by boat. And yet, it is far enough from the shore and populated areas to provide a natural, open-sea environment.

One of the greatest advantages is the tower's stability. It is very secure in high winds, waves and currents and has withstood storm surf up to four meters. This stability comes from the construction of the legs. They slant away from the tower platform at an eight-degree angle and are anchored to the bottom by steel pins—a foot in diameter—driven 63 feet into the ocean floor. This allows the use of highly sensitive measuring instruments, accomplishing precision readings.

The tower's permanence is another advantage. Naturally, long-term measurements could not be made economi-



cally or efficiently from surface craft. Instruments mounted on the tower, however, can operate unattended day and night under all weather conditions. Permanence also makes scheduling and planning easier for Good, who says, "When the tower was put in, it was expected to last for 10 years, maybe a little more. Well, here it is 18 years later, and it still looks very sound, structurally, underwater. We're not sure how much longer it will last, but apparently it will be for some time."

The biggest advantage of the tower is that it is much more economical than an oceanographic ship. Its initial cost was only one-fifteenth that of an average oceanographic ship; maintenance costs—painting, cathodic protection, utilities and replacement of worn parts and cables—are about one-eighth as much as that for a ship.

Manpower utilization is much more efficient. Where—on a ship—most personnel are concerned with propulsion and navigation, almost all human effort on the tower goes toward scientific projects. The tower is usually manned by four or five persons, but it can accommodate at least twice that many if needed.

The tower is versatile as well. Studies of water motion, acoustics, electromagnetics, chemistry, biology and geology—related or unrelated—can be conducted simultaneously.

Most experiments involve internal waves. "These are similar to surface waves," explains Good, "but they are beneath the surface and only occur where there is a change in density. Here at the tower we have a density boundary occurring at the thermocline which is present during the summer months. The thermocline is identified by an abrupt change in temperature within a small change in depth. At that depth a change in density occurs which supports the internal waves. These may range from one or two meters to over six meters in height and the period of the waves varies from five to 20 minutes."

Studies of internal waves are viewed as important because sound waves transmitted through them are refracted differently, depending on where they hit the internal waves. Submarine communications is one aspect of this research, but just as important is its antisubmarine warfare aspects coupled with detection and navigation systems.

The internal waves can be monitored by temperature sensors because of the thermocline condition. This past summer, four arrays of these sensors were put in strategic locations near the tower. For this particular experiment the presence of internal waves was correlated with data being gathered from an extremely sensitive superconducting gradiometer which was being tested as a tool for measuring the change in the earth's magnetic field with the passing of internal waves.

Another notable experiment, this one last winter, involved NASA and 21 other agencies. "Measurements were made of wave height, sea temperature, air turbulence, and environmental factors from the tower," Good states, "then compared to measurements made by four aircraft using remote sensors. The sensors used on the aircraft are prototypes of sensors to be used in the Sea Satellite Program in late '78 or '79.

"Normally we prefer to observe and experiment from the platform when the weather is nice, but in this case, we wanted information at peak storm periods," said Good. "We had some pretty scary days out there trying to get people on and off the tower in those conditions."

Above: Oceanographer Paul Hanson (right) with Dale Good, Director of NOSC's Instrumentation Branch. Opposite page: Navy divers use the NOSC boat to place temperature sensors at strategic points around the tower for an upcoming experiment.

In spite of this, the tower has an excellent safety record over its 18-year lifespan. Several persons have fallen into the water and there have been a few minor injuries but all possible safety precautions are taken.

Good cheerfully tells the tale of one of his early experiences with the tower. It turned out that one of his first duties was to write an instruction of "do's" and "don'ts," one of which was never to stay on the tower alone.

"Well, we had some of our own experiments going on during the day and we were also participating with Lockheed on a nighttime experiment. I was planning to spend one night with the Lockheed people, so I went out on the last run of the Navy boat for that day, which was also used to take the daytime crew ashore. They were all anxious to get home, so, since I expected the Lockheed boat in a matter of minutes, I told them to go on in.

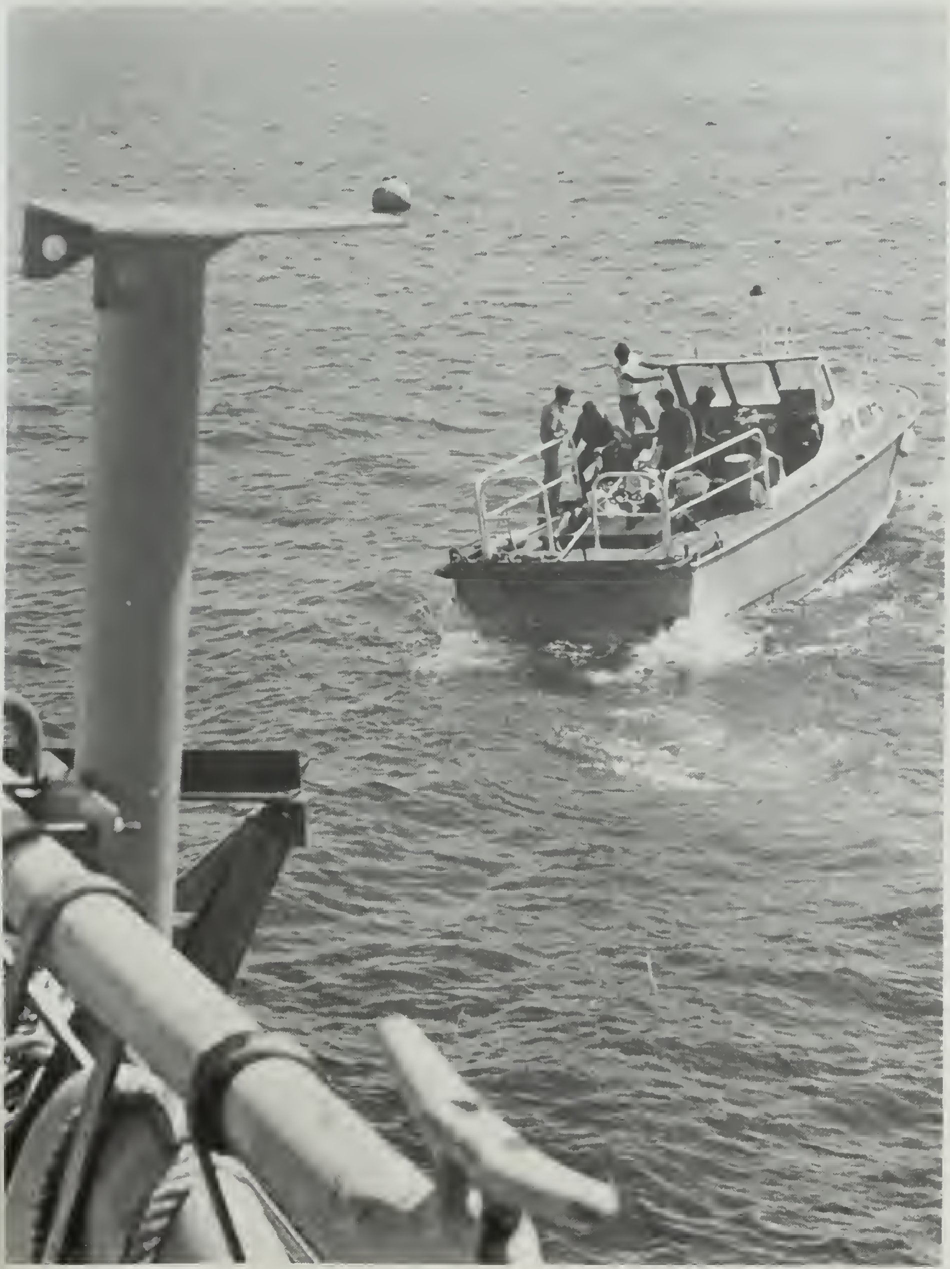
"I waited and waited. No boat showed up, so I called our operations office on the radio and asked them to phone Lockheed for a status report. After checking for a long time, they notified me that the Lockheed boat had broken down but would be out later. Finally, at 2330 that night, I was notified by radio that the boat could not be repaired. I said, 'Don't worry about me. I'll lock the doors, hit the sack, and see the day crew in the morning.'

"Well, before morning an unexpected storm blew in and no one could get a boat out to the tower. It wasn't until the evening of the next day that I finally got off the tower. So, I had the dubious honor of being one of the first to be stranded on the tower alone.

"I'll tell you," he adds, "that tower made some awfully strange noises. You just couldn't believe all the creaks, groans and banging that had never been obvious before."

Occasionally, sharks are seen near the tower, but they have never been a problem. If there are divers in the water, they just get out until the sharks leave. Once, when Good and oceanographer Paul Hanson were working on the bottom, a huge, dark shape loomed into view through the murky water. "At first we couldn't tell what it was but as it continued to pass by, we realized it was a California gray whale, and in a few moments a second one passed right by us. It wasn't particularly frightening since they didn't seem to care if we were there or not. It is unusual for them to come into water that shallow."

Hanson, a long-time Navy oceanographer, believes that a few unauthorized persons have boarded the tower when it was unmanned. "Mostly they were just curious," he says, "and never did any real damage until recently when vandals broke some windows and stole some diving gear."



At one time, three 40-foot booms extended from the tower. Sailboats would get too close, get tangled in the booms and sometimes rip their sails and pull the booms down. Tom La Puzza, of the NOSC public affairs office, was raised in the San Diego area and admits to having been one of the curious boaters. "When I was a kid, long before I even knew what NOSC was, I used to sail around the tower," he said. "I never came aboard, though."

NOSC is currently cooperating with San Diego State University in a mariculture experiment at the tower. At three different depths, 30 cages have been attached to the legs. Eight purple, hinged scallops reside in each cage.

"They are finding out that the scallops grow faster at the tower than in the bay," Good explains, "and faster at mid-level than close to the surface or on the bottom, probably because of the thermocline providing more food at that level." Another research organization has abalone growing at the tower.

"We really get a variety of projects and people out here," he says. "We do applied research, and that's what keeps this work so interesting. There are always new studies coming up. You wonder after finishing one project what's going to happen next. I suppose we'll never run out of things to do."

Deep beneath the ocean's depths cruises the nuclear-powered submarine USS *Pintado* (SSN 672), a self-contained environment where 123 men live and work.

Narrow passageways and cramped quarters are a fact of life for the crew but they've adapted to a space no larger than two semi-trailers end-to-end by forming a close-knit group—a common trait in the submarine force.

"A submariner learns to give and take with other people," explained Machinist's Mate 1st Class Gary L. Vital. "It's a hard life living in close confinement, but we learn to respect each other's rights."

Vital is one of many who agree that working together in tight quarters, coupled with an understanding of the job at hand, spawns a camaraderie unique to submariners.

"The closeness is an advantage since a sailor gets to really know his shipmates," said Commander John J. McDonald, Jr., *Pintado's* skipper. "How well can the commanding officer of a 5,000-man aircraft carrier know his crew?"

The brotherhood of submariners is an outgrowth of trust, since each man's life is in the hands of his shipmates. One mistake could result in the loss of the submarine and its entire crew.

USS PINTADO

we work harder at being better

STORY BY JO1 JAMES R. GIUSTI, PHOTOS BY PHC KEN GEORGE, AND JO1 GIUSTI

Chief Electronics Technician Orval G. Watson, chief-in-charge, topside, forward.

Bottom: On Pintado, *good food is high priority—mess cook F. Martin Lea with the day's dessert.*

"You learn to trust everyone," said Vital. "A guy could endanger us all by doing something wrong or not knowing what to do. Basically, a submariner has to know what it takes to save his and everyone else's skin."

All personnel reporting to a submarine must qualify in order to earn the dolphins of the submarine force, but it takes time.

A sailor goes through four phases of training—ship orientation, damage control, ship systems and watchstanding. It can take up to a year for a sailor to qualify, and then he has to requalify on each boat he serves.

After the initial qualification requirements—being successfully checked out on all ship's systems by a qualified submariner—are completed, the man goes before a three-man board usually consisting of two officers and a chief petty officer. The man is again required to demonstrate his knowledge of how and why the sub works.

Those with nuclear designations must also go through a stringent nuclear training program. But nuclear power training starts even before a sailor reports to the submarine. After his initial training, a sailor with a nuclear designation goes through the advanced Nuclear Power School and

Below: Pintado's *control room.*

Bottom: Electronics Technician 3rd Class Rodney C. Roberts (foreground) and Machinist's Mate 2nd Class Paul E. Kazlauskas practice throwing heaving lines as Pintado *enters Hong Kong harbor.*

Above: Radioman 3rd Class Robert M. Rodriguez, topside petty officer, waits for Pintado *to tie up.*

Right: Machinist's Mate 1st Class Gary L. Vital following a six-hour watch.

Bottom: USS Pintado *(SSN 672) leaves U.S. Naval Station, Subic Bay, R.P.*

Training Unit where he receives first-hand experience working on a nuclear-power plant. The schools are located in New York, Connecticut, Florida and Idaho.

Training is the cornerstone of the submarine force's success and is borne out by the speed and precision in which crewmen respond to an alarm.

Unlike surface ships, where an announcement is made when an evolution is to be a drill, submarines operate under the premise that all alarms are the real thing.

Stemming from the emphasis on training is professionalism, but it's much more.

"It's pride in being a submariner," adds Vital. "We work harder at being better; we have to. *Pintado* is designed to submerge and we all want to get back to the surface."

A submariner's time is spent standing six hours on watch and 12 hours off. When off duty, he heads for the crew's mess which serves four meals a day and also doubles as the crew's lounge.

Meals are served in 32-man shifts with mess cooks serving platters and bowls of food which seem to vanish as fast as they're delivered to the tables. But the food never runs out. With conversations ranging from the number of broken hearts left behind in San Diego to the mail they can't receive

Below: Executive Officer LCDR Fred P. Gustavson conducts a training lecture in the crew's mess.

Bottom: Machinist's Mate 2nd Class Paul E. Kazlauskas maneuvers through one of the sub's berthing areas.

while underway, one submariner injects, "We get the best food in the Navy here." A passing cook nods agreement.

After the main course, the mess cooks hurry from table to table with desserts which are prepared daily aboard *Pintado*. They range from cakes and pies to cookies and ice cream.

After the meal, some men head for their "skids" or bunks, one of the few places a sailor can be assured of some sort of privacy, while others hurry to get in a quick game of checkers, chess or acey-ducey before they "burn a flick" (show a movie).

Even with the inconveniences of submarine life, few sailors would leave it. Vital echoes the sentiment of many submariners, "I wouldn't go to a skimmer (surface ship) even if the hours were shorter."

For these sailors, a feeling they're dedicated, professional and being the best are rewards enough for an unusual way of life. ⚓

West Africa

BY LT RICHARD DICK

Crewmembers aboard USS *Julius A. Furer* (FFG 6) recently visited three ancient African ports in nations as new as the space age.

The occasion was a good will tour along West Africa's coast. Preconceived notions the crew may have had about the Dark Continent were quickly dispelled—Africa, they found, is a continent rich in natural beauty with a tradition of friendliness towards visitors.

Long before tying up at the first port—Freetown in Sierra Leone—*Furer* began preparations for a busy schedule of ceremonial visits and social functions. In addition to the normal shipboard routine of maintenance and training, all hands turned to, putting in extra effort to ensure a flawless shipboard appearance.

The highlight of the visit had to be the arrival of Siaka Stevens, President of Sierra Leone. A 21-gun salute greeted the president as he came aboard in the afternoon and *Furer* later got underway. For the next few hours,

Ho!

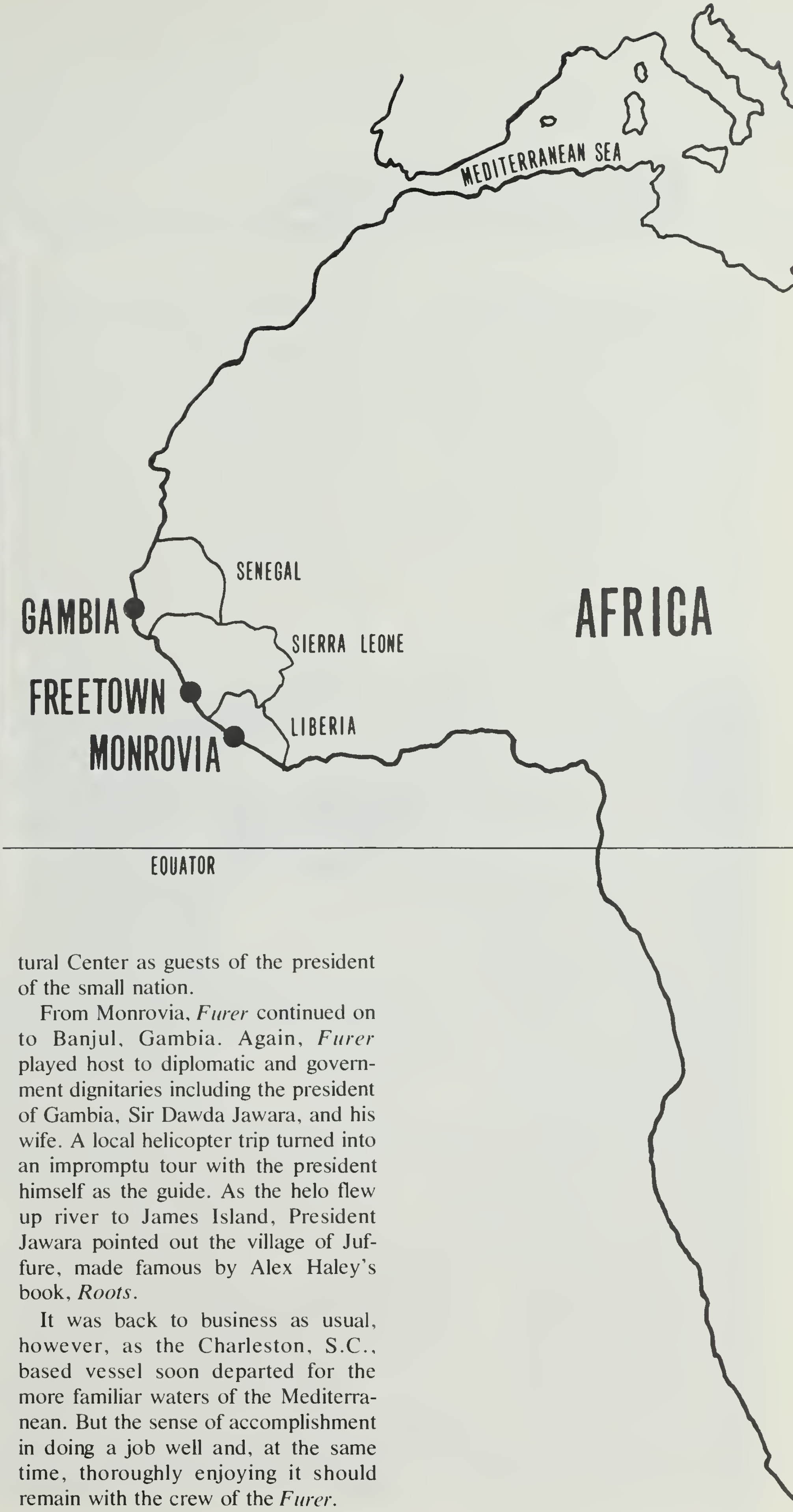
President Stevens saw a display of the capabilities of the guided missile frigate. The president seemed thoroughly impressed with the readiness of the ship and her crew, and when presented a *Furer* ball cap, he donned it immediately.

The feeling of fellowship continued throughout the day as crewmembers enjoyed the white sands and warm waters of Lumley Beach or participated in traditional sports events with the Sierra Leone army. As might be expected, the army won a soccer game handily, but came up against some stiff competition in basketball—*Furer's* team won, 69 to 51. They may have become a bit too overconfident because at the next port call, Monrovia, Liberia, *Furer's* basketball team suffered defeat at the hands of the Liberian armed forces.

At Liberia, the ship was opened to visitors, and people were quick to return invitations. The crew went on fishing expeditions with the Liberian navy, toured and lunched at a local rubber plantation, and enjoyed a special performance at the National Cultural Center as guests of the president of the small nation.

From Monrovia, *Furer* continued on to Banjul, Gambia. Again, *Furer* played host to diplomatic and government dignitaries including the president of Gambia, Sir Dawda Jawara, and his wife. A local helicopter trip turned into an impromptu tour with the president himself as the guide. As the helo flew up river to James Island, President Jawara pointed out the village of Juffure, made famous by Alex Haley's book, *Roots*.

It was back to business as usual, however, as the Charleston, S.C., based vessel soon departed for the more familiar waters of the Mediterranean. But the sense of accomplishment in doing a job well and, at the same time, thoroughly enjoying it should remain with the crew of the *Furer*.



Bearings

News Center Director

"Twenty-five years ago, there weren't many fields a young woman could enter as a profession," Captain Alice C. Marshall said, explaining why she chose a career in the Navy.

She had worked in radio and television but opportunities were limited. "Up to a certain point, women were employed just like the men, but men became station managers or moved up in the network," she said.

"The women never went in that direction. I felt that was true in other areas; I believed my best opportunity was the Navy."

CAPT Alice Marshall is now director of the Fleet Home Town News Center in Norfolk, Va. The center produces 100,000 press and radio releases a month on individual Navy, Marine Corps and Coast Guard members. It operates on the principle that sea service people make good news copy in their home towns.

However, Fleet Home Town News Center does not originate, only reproduces, the press releases. Information is submitted by commands all over the world. Data is electronically processed and distributed to the nation's news media.

CAPT Marshall is also director of the High School News Service, a DoD activity that publishes a magazine called "Profile" six times a year. This deals with all five services and is distributed nationwide to high schools and career counselors.

When the captain was commissioned in 1952, there was only one woman captain on active duty in the Navy—the director of the WAVES. That officer held captain's rank only while serving as director. When she left the job, she reverted to the rank of commander.

"Today there are at least 10 women line captains and even an admiral," CAPT Marshall said.

In the 1950s, women officers were generally limited to positions in the administrative fields. "For a woman to get into a field like electronics," she said, "that woman had to be very exceptional. Now only the seagoing jobs are closed to us."

Fleet Home Town News Center is CAPT Marshall's first command. Yet, she has no qualms about her ability to handle the assignment. "Good management is good management," she said. "I don't think the techniques I use should be different because I'm a woman. I approached this job as I've approached every other job—with the intention of doing it to the best of my ability and with a concern for the mission, the people and the command as a whole."

CAPT Marshall would like her next command to be a ship, though she knows it won't be. "At this point, we are far away from a woman being in command at sea because of a lack of practical experience," she said.

"However, commanding a ship is a

management function much like managing any other activity, but it also presents a possible combat situation. We don't have women now who have the training and background to command at sea."

The captain thinks that women should be allowed to go to sea though. She says there are a number of jobs that could be done by women on ships without jeopardizing readiness. Additionally, she thinks women should be allowed to fly all types of aircraft. "I think we have some women who would make marvelous fighter pilots because of their stamina and abilities."

In spite of restrictions, CAPT Marshall has had a rewarding career. "I have done everything I set out to do," she said. "When I came in, commander was the highest permanent rank a woman could attain. I set out to be advanced as far as I thought my talents would reasonably take me; now I have a command—that was one of the things I wanted."

A quarter century of naval experience has entitled CAPT Marshall to give advice to young women (and men too) just starting out: "Do your job the best way you know how. Learn as much as you possibly can."

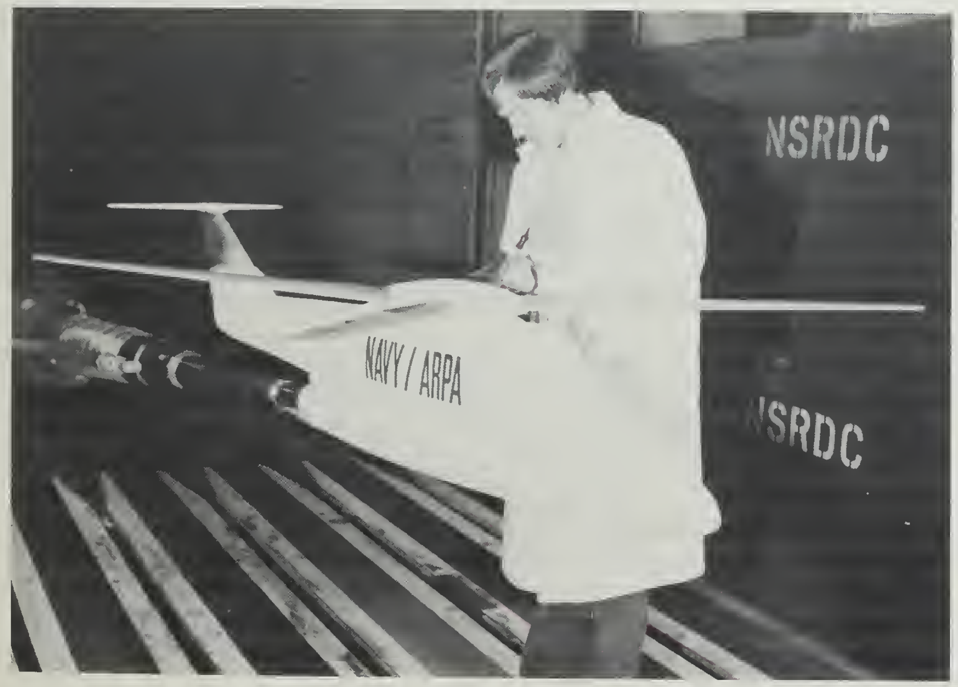
JO2 Glenna Houston

X-Wing Provides Lift

Engineers at the David W. Taylor Naval Ship Research and Development Center in Carderock, Md., may have solved an aerodynamic riddle that has been giving vertical-takeoff-and-landing-aircraft experts quite a headache. How does one design a plane that can do what appears impossible—hover like a bumblebee one minute and zoom like a diving hawk the next?

The X-Wing composite aircraft may be the answer to the problem.

Sponsored jointly by the Defense Advanced Research Agency and the Navy, the X-Wing has proven capable of extending hovering and high speed cruising (Mach .80) in recent tests. Past attempts to develop a VTOL aircraft with both capabilities have been unsuccessful—hovering and high-speed cruising seemed to be mutually exclusive characteristics. X-Wing's "unique circulation control aerodynamics" are expected to provide a much needed breakthrough solution.



For the technically minded, this is how the X-Wing works.

The circulation control concept employs relatively thick, hingeless blades with rounded trailing edges. Low pressure air is pumped into each blade and is ejected from a thin slot on the upper surface of the trailing edge. Due to an aerodynamic phenomenon—the Coanda effect—the air adheres to the rounded edge until it reaches the lower surface, thus keeping the boundary layer from separating. This creates high lift.

The single lift system is used throughout the entire speed range. Operating as a four-bladed rotor, the X-shaped wing allows the aircraft to hover or proceed at low forward speeds. When the wing is slowed or stopped, the aircraft is capable of high forward speeds.

In other words, the X-Wing can hover when the wing spins like a rotor, and cruise at high speeds when the wing is locked into one position (though that position can be varied on an axis).

Full-scale wind tunnel tests of the critical rotor and hub control system are scheduled for 1978. Flight tests of a demonstrator vehicle could begin as early as 1979. It is possible that the X-Wing composite aircraft will be in the fleet of the 1980s.

Bearings

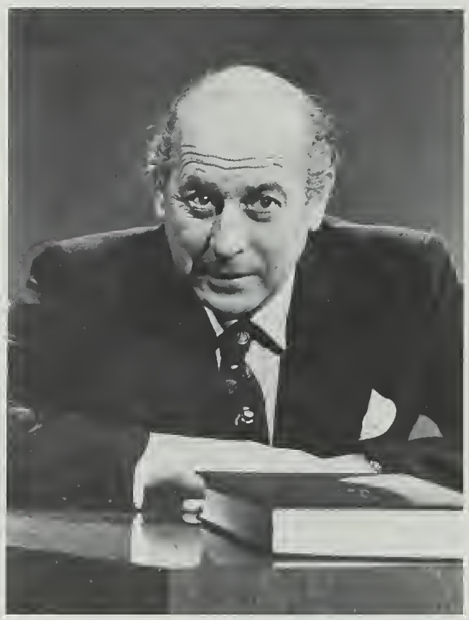
Taping Noted Editor

This spring, the Naval Photographic Center in Washington is expected to release a 20-minute SITE System television spot featuring Royal Navy Captain John E. Moore, editor of *Jane's Fighting Ships*. CAPT Moore expounds upon his findings concerning the balance of sea power between the U.S. and Soviet navies.

"If they [the Soviet Navy] are to operate in any kind of hostile situation," *Jane's* editor said, "the difficulties for [them] will be far greater than for any other navy in the world." CAPT Moore emphasized that the deciding factor in any naval confrontation would not be numbers or tonnage of the opposing fleets, but the attitudes, training and experience of those who man the ships.

Chief of Naval Operations Admiral James L. Holloway III has repeatedly stated that "Today the U.S. fleet has a slim margin of superiority over the Soviets in those scenarios involving the most vital U.S. national interests."

CAPT Moore draws upon his 34 years of naval experience to explain why the CNO's views, in his opinion, are valid. "Let us describe [the Soviet Navy] as a generally *good* outfit," the captain said, "but what I'm talking about is a comparison between them and the *excellent* outfit which is the U.S. Navy. You have to remember when comparing yourselves in the U.S. Navy to the Soviets that you have the advantage.



"You have the advantage of education, tradition, knowledge and experience. These things are of the greatest possible value should it ever come to a confrontation."

Moore stresses that analysts have to avoid comparing navies based solely on tonnage and numbers of fleet units. "These are idiocies compared to the study of the men that man them," CAPT Moore said. "The greatest single factor is the man."

Interspersed with the captain's comments will be stock footage illustrating as nearly as possible the subjects about which he speaks including Soviet and American training, vessels and methodology.

First Off the Line

Patrol Squadron Six (VP 6), based at Barbers Point, Hawaii, recently accepted delivery of the first of nine modernized P-3B *Orion* aircraft it will receive from the Naval Air Rework Facility Alameda, Calif.

Four other Hawaii-based squadrons and 13 reserve squadrons eventually will receive the modernized P-3B, resulting in a major upgrading of antisubmarine warfare capabilities.

The modernized P-3B features a digital computer processing capability, a world-wide Omega navigation system, tactical display capabilities and advanced acoustic sensor equipment. These give the aircraft an ASW capability comparable to the P-3C.

In the Public's Eye

"It's our way of celebrating the Navy's 202nd birthday . . . it shows to thousands of viewers our support for the Navy, the Naval Reserve, and the military establishment in Jacksonville and the world." That's how sports editor Nick Bashnan explains why he and weather man Ray Boylan are wearing uniforms for the evening news on station WTLV-ch. 12. Bashnan is a Navy Reserve officer with the Naval Reserve Public Affairs Unit at NAS Jacksonville and Boylan is a retired Navy lieutenant (Anchorman John Hogan and anchorwoman Deborah Gianoulis are in the middle).

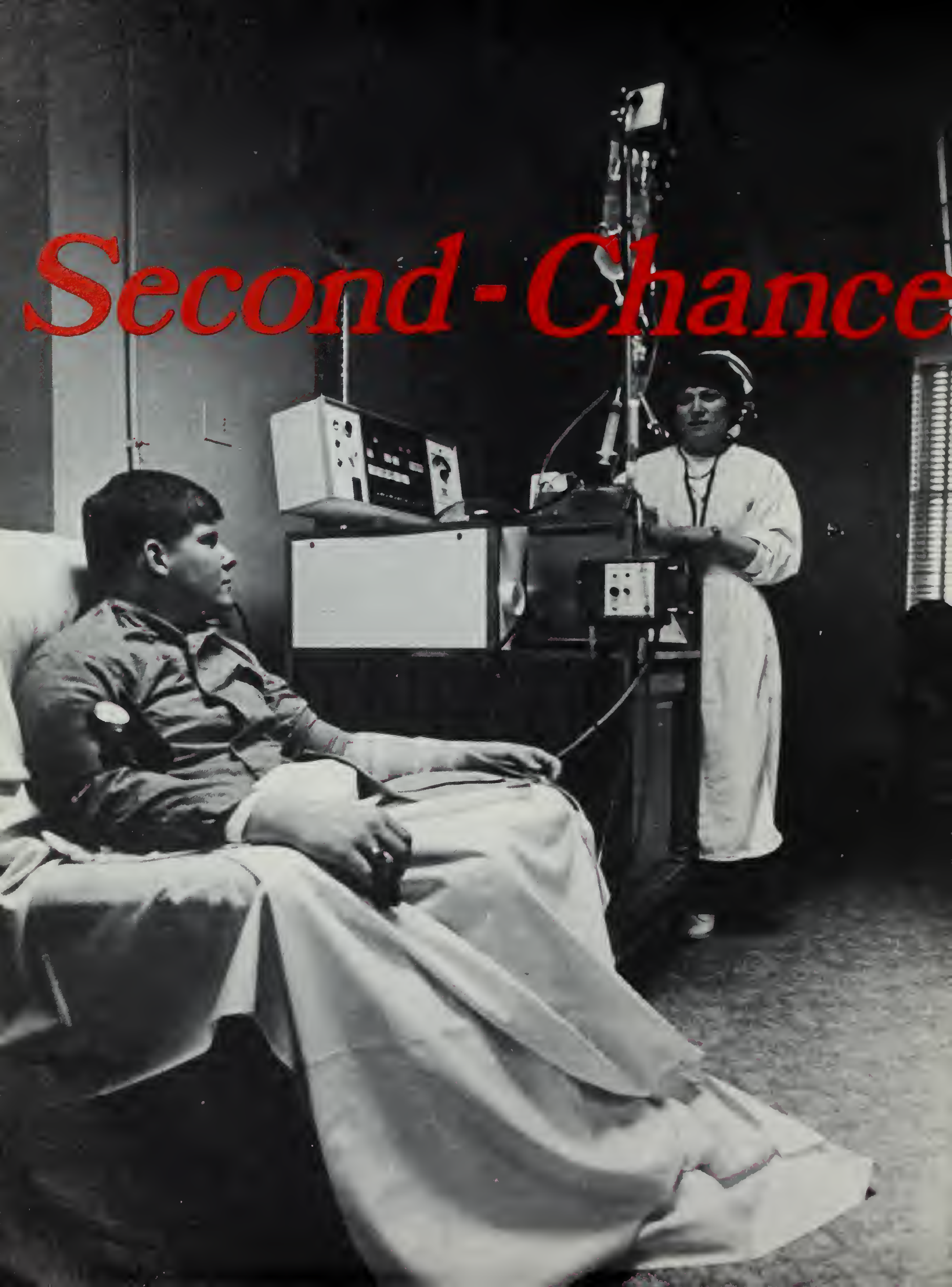
Selling a Navy Career

Aboard USS *Worden* (CG 18), operating out of Yokosuka, retention is more than just a word—it's a common occurrence. In the six quarters from July 1976 to December 1977, *Worden* reenlisted 100 percent of all eligible second-term and career designated personnel and two-thirds of all eligible first-termers for an overall retention rate of 79 percent.

Much of the credit for *Worden's* enviable reenlistment record goes to Navy Counselor 1st Class Grover L. Strickland, career counselor for the cruiser. "We're not just looking at the next tour or reenlisting for orders," he said. "We try to sell the Navy as a career."

Strickland feels *Worden's* achievement is linked directly to the level of training on board. "As the men become more proficient in their jobs," he explained, "they take a greater pride in their work. They start looking for ways to improve themselves further and that includes reenlisting for a school."

Translated into terms of people, *Worden's* reenlistment percentages reflect 18 first-termers, five second-termers and 11 career designated personnel who have "re-upped" in the last year and a half. In the most recent quarter, USS *Worden* cleared the boards by achieving 100 percent reenlistment of all eligible personnel regardless of pay grade.



Second-Chance

Miracle Kidney Transplant

BY JO2 DAVIDA MATTHEWS

Seventeen-year-old Judy Gregory didn't feel well, but she accepted the day's discomfort as part of her pregnancy. By that evening, Judy was in so much pain that her husband, Army Spec. 4 Terry Gregory, rushed her to Portsmouth Naval Hospital.

Judy had suffered a total kidney (renal) failure. She was in critical condition for days, eventually losing the baby while doctors fought to keep her alive. Judy recovered, but her life would never be the same.

In the following years, Judy's doctor tried medication after medication—each with its own peculiar side effects—in an effort to heal her kidneys. Most of the foods she loved were forbidden—she was placed on a strict no-salt diet of bland foods. Worst of all, Judy faced dialysis.

Three times a week, she checked into the hospital where she was connected to an artificial kidney machine. For eight hours, her entire blood supply passed through filters which cleared her body of poisonous wastes.

"I felt like I was chained to that machine," Judy said. "It took so much time and interfered with my life and how I wanted to live it. I was willing to try anything to get away from it—to start living a normal life again."

Judy wasn't alone with her problem. Each year, more than 10,000 Americans develop chronic renal failure. Their only hope is to be hooked up periodically to a dialysis machine or to receive a kidney transplant.

Judy's doctor contacted the Navy's kidney transplant team at the National Naval Medical Center (NNMC), Bethesda, Md. Because of her age and general physical condition, she was a prime candidate for a kidney transplant. But she faced another problem, one that has plagued the transplant program since its inception: lack of donors.

"Judy's name was placed on a list with about 30 other people from this area," said Lieutenant Commander (Dr.) Mitchell Goldman, head of Reparative Surgery Division at the Naval Medical Research Institute (NMRI), Bethesda, Md. "How long she would wait depended upon the donation of a compatible kidney. Often, close relatives will donate one of their kidneys—40 percent of the kidneys we transplant come from living relatives of the recipients," he explained. "Those transplants stand a better chance of 'taking' because of the similarity of tissue. The success rate is about double that of transplanting from cadaver donors."

LCDR Goldman

Lieutenant Maureen Robards, charge nurse of the hemodialysis unit at the National Naval Medical Center at Bethesda, monitors dialyzing patient. Photo by JO1 P. Sundberg.

The source of kidneys from living relatives is limited, however. Few patients have blood relatives who are both able and willing to donate a kidney. Patients must rely on kidneys from deceased donors.

"It may be necessary to check hundreds of donor kidneys against the body chemistry of the recipient to avoid rejection or at least ensure a minimal reaction that can be controlled by anti-rejection drugs," Dr. Goldman said.

A computer system is now aiding facilities nationwide in this screening process. The transplant team daily receives a computerized file of all waiting recipients, complete with their physical and histocompatibility (tissue) data. Donor organs that do not match any recipients in the region where they become available can now be sent to a more closely matching recipient elsewhere. "We are cutting down considerably on wasted organs, made useless because we couldn't find a recipient in time," Dr. Goldman said.

So Judy waited. Twice, kidneys were donated that initially matched her requirements. She was rushed from Portsmouth—one time by helicopter—to Bethesda for final typing and matching. Both times, the organs were closer matches for someone else.

Then in April 1977, a year and a half after Judy's name had been placed on the waiting list, the transplant unit was notified of another kidney that tentatively matched Judy's needs. They sprang into action. Again, Judy was brought to Bethesda. At the donor hospital, both kidneys were removed, prepared for transport, flown to Andrews Air Force Base, Md., then airlifted by helo to Bethesda.

"Speed is critical," explained Goldman. "We can keep a kidney viable only 72 hours by using a Belzer perfuser—a machine that keeps fluids circulating through the organ by way of a blood vessel. The sooner the organ can be transplanted, the better the chances of success.

"In Judy's case, it wasn't necessary. But if need be, we'll fly a surgical team anywhere in the U.S. to harvest an organ," he continued. "Many hospitals don't realize we exist or that we have the capability to do this. As a result, thousands of organs are lost to us each year."

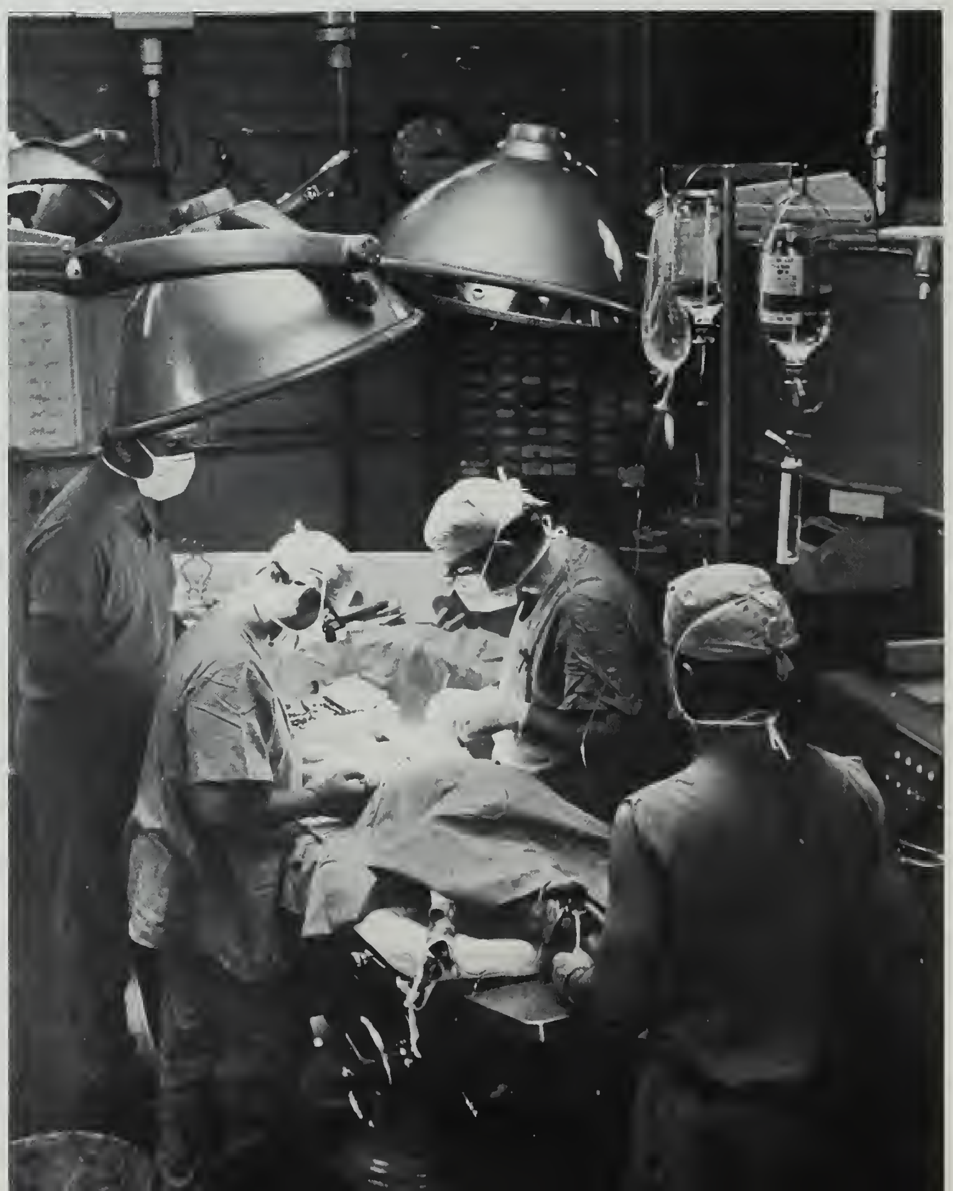
As for Judy, she finally got the kidney she had been waiting for; but it's not a happy ending yet. Despite treatment and precautions, her body rejected the organ. She developed a wound infection and later, a viral infection. "The drugs we must use to control rejection leave the body practically defenseless against bacteria that normally would be harmless or easily combated," Dr. Goldman explained. "For a transplant patient, a cold can kill."

Judy has been in and out of the hospital since her operation and is currently undergoing radiation treatments to counter still another rejection episode. Despite all the problems she has had with the transplanted kidney, if it fails, Judy is determined to go through with another transplant.

"I'm only 24 and I can't stand the prospect of dialysis the rest of my life," Judy said.

Judy's transplant also releases the dialysis machine for someone else. "There just aren't enough of these artificial kidneys to care for the people who need them. The situation is so critical in some areas that many hospitals are forced to work around-the-clock operating their dialysis machines to keep up with the demand," Dr. Goldman said.

Dialysis is a costly, time-consuming business. The annual cost for a person with little or no kidney function approaches $25,000. Less expensive—but



Left: Corpsmen insert a segment of freeze-dried artery to study the animal's reaction. Above: Delicate operation requires a closer look.

less efficient—machines may be purchased for use at home, but even these involve an annual outlay of several thousand dollars.

A transplant procedure costs about $10,000 to $15,000, and the transplanted kidney has an average lifespan of five years. ". . . but there are many exceptions," Dr. Goldman reported. "In October 1969, our team performed its first kidney transplant on David Bryan, the 19-year-old son of a retired Navy man. He is still maintaining normal renal function."

Since that first operation, 60 kidneys have been transplanted at Bethesda. Last October, to avoid duplication, the Navy transplant team joined forces with the Army at Walter Reed Hospital.

"It takes the same number of people to do transplant surgery whether it be one or 30 operations a year. By combining our facilities, we not only get a better transplantation unit, but also get more time to devote to research," Dr. Goldman said.

Now most of the actual transplant operations are performed at the Walter Reed facility. Research continues at Bethesda.

Mitchell Goldman is more than qualified to supervise research in organ transplantation. He received his BA degree from Brandeis University in Mass., then continued on to Harvard Medical School. He completed his internship and residency training at Peter Brigham Hospital in Boston, site of the first kidney transplant performed in the U.S. He joined the Naval Reserve in 1970 and came on active duty in 1976.

"There are so many questions still unanswered—how the body rejects organs and how we can prevent it without lowering the body's defenses, long and short term preservation, closer tissue typing and matching—the list is endless," he said.

Dr. Goldman, assisted by five hospital corpsmen—HM1 Dennis French, HM1 Mike Forney, HM1 Lou Meister, HM2 Keith Gawith and HM3 Jerry

Forgey—is making progress in transplant surgery using animals obtained from a conditioning farm. The majority of the actual experimental surgery is performed by the corpsmen who attend a nine-month transplant technician school conducted at Bethesda before assignment to the research unit.

A freeze-drying method developed at NMRI has revolutionized tissue preservation. The process removes water from frozen tissue by vaporizing the moisture in a high vacuum and then condensing the vapor. The tissues may then be stored under vacuum at room temperature for 10 years or longer. When used for transplanting, the tissues require no matching since the ability to provoke rejection is lost in the freeze-drying process.

However, larger organs present problems. Quick-freezing produces intracellular ice crystals that damage the cellular structures. For long-term preservation of organs, a new method must be developed. That is just one of the many areas Dr. Goldman's unit is investigating.

Although long-term preservation or even portable artificial kidneys will be available someday, it's little consolation to those who need kidney transplants now. Eighty percent of today's patients with renal failure will never receive a kidney because there aren't enough being donated.

In early 1976, more than 10,000 people were living on borrowed kidneys, 52 others were alive because of someone else's heart, and 28 depended on transplanted livers. Each year, about 6,000 people see again through donated corneas.

Four times as many people survive from day to day, waiting for their second chance through a gift of a donor organ. If you would like to help save the life of a fellow human being, you can take steps now to ensure that your wishes are carried out.

You can take your body with you, but in this case—don't. Leave behind a part of yourself so that others might live. *Photos by JO1 Jerry Atchison.* ⚓

HM2 Gawith adjusts kidney perfuser.

Paving the way

The Uniform Anatomical Gift Act which served as a model for similar laws passed by all 50 states and the District of Columbia provides that persons 18 or over may donate all or part of their bodies for research, transplantation or placement in a tissue bank. When properly filled out, a wallet-size card such as the example shown is accepted as a legal document. Many states are permitting intentions to be indicated on drivers' licenses. In any case, you are free to change your mind at any time.

The model law for donations also makes the following provisions.

- A donor's valid statement of gift is paramount to the rights of others except where a state autopsy law may prevail.
- If a donor has not acted during his lifetime, his survivors, in a specified order of priority, may do so, in his name.
- Physicians who accept organs or tissues, relying in good faith on the documents, are protected from lawsuits. The physician attending at the time of death, if acquainted with the donor's wishes, may dispose of the body under the Uniform Anatomical Gift Act.
- The time of death must be determined by a doctor who is not involved in the transplantation, and the attending physician cannot be a member of the transplant team. The transplant team, likewise, is forbidden to make a death diagnosis—certifying that the donor is indeed dead.
- The donor may revoke the gift and the gift may be rejected if not suitable.

The act states that the gift may be made by a will and becomes effective without waiting for probate. However, you should reveal your intentions to your doctor and to as many relatives and friends as possible, and carry a donor card with you at all times.

Many potential donors fear that if they sign up to donate an organ after death, it might be taken before they are, in fact, dead.

Obviously, the victim is a patient first and becomes a potential "donor" only when it is certain that there is no way to save his or her life. If breathing and the heart have stopped, there is no problem in declaring death. However, if the victim is put on a mechanical respirator to try to keep oxygen and blood circulating to the brain, it is not so simple.

Many states have revised their laws making absence of brain function as well as absence of spontaneous heartbeat the main determinant of death. Generally, brain death is declared only if the victim cannot breathe spontaneously without mechanical assistance, if there is no response to pain or light, and if an electroencephalogram reading of brain waves shows no activity for 24 hours. ⚓

UNIFORM DONOR CARD

OF ______________________________

Print or Type name of donor

In the hope that I may help others, I hereby make this anatomical gift, if medically acceptable, to take effect upon my death. The words and marks below indicate my desires

I give (a)____any needed organs or parts
(b)____only the following organs or parts

____

Specify the organ(s) or part(s)

for the purposes of transplantation, therapy, medical research or education,

(c)____my body for anatomical study if needed

Limitations or special wishes, if any ______________________________

Signed by the donor and the following two witnesses in the presence of each other:

______________________	______________________
Signature of Donor	Date of Birth of Donor
______________________	______________________
Date Signed	City & State
______________________	______________________
Witness	Witness

This is a legal document under the Uniform Anatomical Gift Act or similar laws

For further information consult your physician or

American Medical Association
535 N. Dearborn, Chicago, Ill. 60610

Cut along dotted line

1979
Defense budget

The administration's $126 billion defense budget for FY 79, announced in late January, was described by Defense Secretary Harold Brown as "austere but adequate."

The proposed budget, while providing the Navy with $1.1 billion less for shipbuilding than last year, still boosts the Navy's overall package by $1.2 billion over FY 77's figure. The budget is aimed primarily at strengthening the combat capability of those U.S. forces which support the NATO Alliance. It places high priority on cruise missile production and the development of a new land-based ICBM.

The budget makes provisions for a six percent pay raise in October 1978 and the passage of legislation providing for sea pay, family separation allowance, quarters allowance and military trailer allowance. It also includes $88 million to extend travel and transportation entitlements to dependents of junior enlisted personnel overseas.

The Navy will procure one less Trident submarine in FY 79 than in FY 78, in keeping with the administration's plan to build three Trident submarines every two years (as presented to Congress last year). The Navy will also build nine other combatant ships as compared to 11 in FY 78. Dollars for the procurement of new aircraft—24 F–14s and five F–18s—also are included in the proposal.

The proposed budget also calls for a reduction of about 10,000 active duty Navy personnel in FY 79 and the transfer of 35,000 Naval Reservists from the Selected Reserve to the Ready Reserve.

Funding for aircraft carriers, additional A–7E *Corsair* aircraft, new engines for the F–14 aircraft, and procurement of the surface effect ship (SES) is not included in the budget.

When asked why funding for the SES was not included in this year's budget, Secretary Brown said, "We would still need to understand much better than we do just what it would be used for, and how it would be used, what it would be equipped with and what advantages it would offer for its obviously very substantially increased cost. In the absence of a better understanding of that, I considered that at this budget level it did not compete, and so it is not included in the budget."

The Navy will continue to operate 13 carriers and 12 air wings throughout FY 79. Four *Los Angeles*-class nuclear submarines will be introduced into the fleet. USS *Nautilus* (SSN 571) will be inactivated for a net gain of three nuclear-powered submarines. *(See Currents.)*

Eight new *Spruance*-class destroyers and one new amphibious assault ship (LHA) will be delivered during FY 79. One destroyer and one diesel submarine will be deactivated.

With respect to future ship procurement, Secretary Brown said, "We are delaying the fiscal year 1983 projections that we will be presenting to Congress on the Navy ship construction program until there is a completion of a study by the Navy and the Office of the Secretary of Defense of the Navy ship construction program in February, after which the President and I will make our decisions in March probably and forward the program to Congress."

The FY 79 defense budget proposal has been forwarded to Congress for approval. ⚓

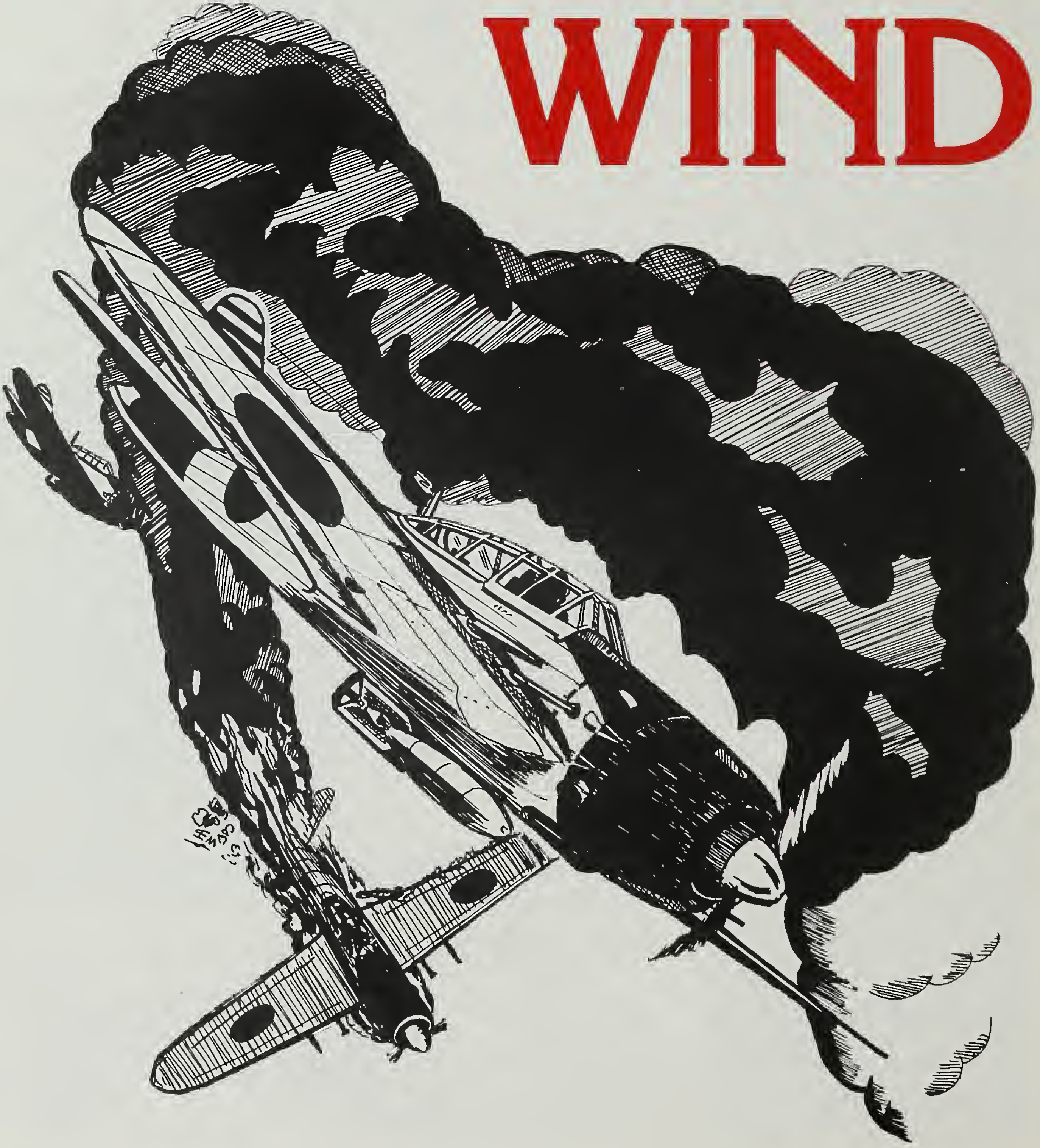
New additions to the fleet

The U.S. Navy in fiscal year 1979 will welcome 14 new ships to the fleet: one submarine tender, one amphibious assault ship, and the rest destroyers and nuclear submarines. Nine of these have already been launched. The newcomers are:

- *Emory S. Land* (AS 39)
- *Conolly* (DD 979)
- *Moosbrugger* (DD 980)
- *John Hancock* (DD 981)
- *Nicholson* (DD 982)
- *John Rodgers* (DD 983)
- *Leftwich* (DD 984)
- *Cushing* (DD 985)
- *Harry W. Hill* (DD 986)
- *Nassau* (LHA 4)
- *Birmingham* (SSN 695)
- *New York City* (SSN 696)
- *Indianapolis* (SSN 697)
- *Bremerton* (SSN 698)

Those ships that have already been launched are: *Emory S. Land, Conolly, Moosbrugger, John Hancock, Nicholson, Nassau, Birmingham, New York City,* and *Indianapolis.*

DIVINE WIND



Desperate Reenactment of an Ancient Legend

BY JOHN M. JOYCE

Editor's Note: The Pacific Theater during World War II was the scene of many intense battles, often involving unique situations and innovations for air/naval warfare. Of these, none were more intriguing or frightening to American Navy men than the kamikaze attacks of the Japanese.

While ancient and modern war records cite many examples of desperate acts of courage by individuals, seldom have entire units been formed for the purpose of trading their members' lives for as much death and destruction as possible.

The following article about the kamikazes deals with courage. To the Japanese of World War II, hearkening to the ancient code of the samurai, there was nothing more glorious than to die for the cause.

Through this article, ALL HANDS *attempts to show, without judgment, another aspect of warfare unique to Navymen.*

As to any respect or abhorrence for men fighting for their beliefs, that determination rests solely in the viewpoint of the individual.

High over the shimmering surface of the Pacific Ocean, the "Divine Wind" of the ancient Japanese gods was blowing full force the night of March 11, 1945. Its purpose was to sweep off the face of the ocean an enemy threatening the homeland, just as the kamikaze (divine wind) had destroyed a Mongol fleet attacking Japan in 1570.

Passage of centuries had altered its appearance. The shriek of the gale was now the whine of an airplane engine, and movement was directed not by the hand of the gods, but by the hands of humans—those of pilots.

One of the pilots that night glanced to his side at the other planes flying in formation with him, all at the same speed. The sight comforted him. Knowing the other pilots shared his destiny made his fate more bearable. Theirs was a rare comradeship, one shared only by men who willingly face certain death together—death which, to them at least, was heroic and meaningful in the belief that it would breathe new life into their gasping nation.

Already, pilots of the Special Attack Corps, Kamikazes, formed only five months before, had inflicted heavy losses on the American Navy off the Philippines and Iwo Jima. Tonight, his purpose and that of the rest of his small *tokkotai* (special attack unit) was to crash their planes, each carrying a 250-kilogram bomb, into ships of the U.S. fleet anchored in the Ulithi Islands.

As his twin-engined plane bucked and shuddered like a frightened horse, he fought a surge of panic. The plane had been patched together and reinforced with parts from damaged planes for this one final trip. It had taken on barely enough fuel to reach the target. Fingering a small *omamori* (good luck charm) in his tunic pocket, he prayed that he be allowed to acquit himself with honor along with his comrades, that he not waste his life out here, alone.

Looking ahead to the distant horizon, he saw a filmy whiteness hanging low as a morning mist and knew his plea had been answered. He then threw a switch which released tinfoil in the hope that it would jam the Americans' radar.

Seconds later, a glow from the illumination of many lights lit the northwest sky. In the fleeting moments he recalled other lights, the lights of Yokohama. A year before he had sailed from there, and had watched as those lights faded in the distance. He realized now that it was the last view he had known of his homeland.

Suddenly, the glow was gone. Radar had found his group, but it was too late—he was already winging over the dark humps of the outlying islands. His fears, his memories quickly faded. Now, seconds from death, his muscles tensed and twitched from the great power he felt as he made the final preparations.

He armed the bomb so it would explode on contact and adjusted the small white flag on his shaved head, turning it until the crimson sun was over his forehead. Starting the descent under full throttle, he braced for anti-aircraft fire but there was none.

The sight below filled him with joy. Masts, turrets and superstructures from a multitude of ships riding at anchor were silhouetted against the darkened waters of the lagoon.

Almost a thousand ships of all types rode at anchor in the natural harbor formed by the coral islands of Ulithi. Every shape the pilot had memorized in recognition class was present—the carriers, battleships, cruisers, destroyers and auxiliaries—sitting like fat, sleeping pigeons.

They comprised one of the mightiest forces of naval power ever assembled in one place. It was the American invasion fleet which was forming for the landing on Okinawa and included elements of the famed Task Force 58.

Flushed with excitement from the number of prime targets which were his for the choosing, the young pilot wiped the sweat from his eyes and scanned the scene, searching right, then left. Suddenly something straight ahead, at the far edge of the harbor and near the open sea, caught his attention.

It seemed to be a compact superstructure centered on a long, low flight deck—it was a carrier and it was a big one. With his throat dry and his nerves tingling, he shoved at the control stick and took dead aim for the carrier's island.

The plane responded, lurching as it accelerated into a steep power dive; pilot and plane were one. The pulse of the motor matched the pounding of his heart; the scream of the plane's dive gave voice to his defiance.

As he gained speed, the ocean seemed to race past him. Growing bigger and coming closer every instant, the dark water and darker outline of the ship rushed to meet him. In the last instant, he could see the white phosphorus of the waves lapping at the ship's hull-like surf breaking on an island's shore.

At that instant, only he and his gods will ever know if he realized too late that he was plummeting toward a real island.

With the great number of possibilities on which to unleash his fury, the young kamikaze pilot, in his excitement, had mistakenly zeroed in on Sorlen, one of the small, low islands in the horseshoe-shaped atoll.

Sorlen was equipped with support facilities for landing craft units. The signal tower and water tank which had been erected near the center of the barren, sandy island would, in the darkness, project a shadowy contour similar to that of a carrier.

Off-duty sailors on the island that night were watching a movie when "Condition Red" sounded. As the sailors moved through the darkness toward their assigned stations, they grumbled over the interruption, believing perhaps that the alarm was only for the highflying, unarmed reconnaissance planes—the "Bed Check Charlies"—which had been spotted before over Ulithi at this time of night.

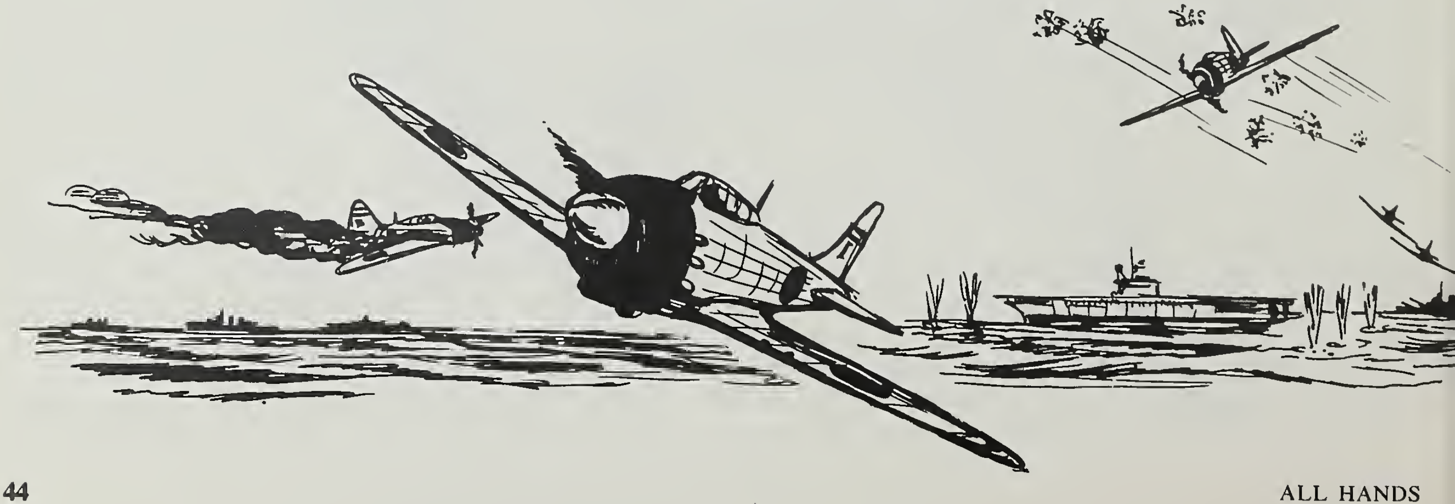
Whether it was because they moved slowly at this thought, or because the alarm had been sounded late, the men hadn't gone far when they heard the shriek of the kamikaze rushing headlong across the anchorage. Hypnotized by the shrill crescendo of the plane as it roared out of the blackness in vengeance, the sailors watched it strike the ground between the signal tower and water tank.

Sorlen shuddered under a crunching impact as the "Divine Wind" unleashed its fury in a thunderous ball of fire. Fragments of rock and metal whipped through tents and rattled the tin quonset huts while, at the heart of the blast, flames erupted amid billowing clouds of dense black smoke.

Long after the storm had subsided and the fires had died, a stunned silence hung over Sorlen. Ghostly traces of the "Divine Wind" lingered, fanning smoldering embers in the wide, shallow, newly formed hole.

* * *

That one young pilot may have considered himself a failure, but he was not the only one to misjudge a target that dark night. Of the 11 pilots who took off from the Japanese stronghold of Truk and coaxed their rickety



medium bombers through the lonely one-way trip to Ulithi, 10 had misjudged their targets: one, the young pilot who hit Sorlen, and the other nine who crashed harmlessly into the inky waters of the lagoon. Only one of the ragged, hard-bitten band managed a degree of success, striking the fantail of the carrier USS *Randolph* (CV 15).

It was hardly a devastating blow to the U.S. Pacific Fleet, but the Japanese were far from finished using their "Divine Wind." In Japan, thousands of young men were volunteering for the Special Attack Corps, eagerly pledging their lives to gain time for their beleaguered country. Using the bomb-laden plane as a projectile, one man could sink a great American ship of the line.

To the Japanese, these were magnificent odds; the life of one man against the lives of hundreds, even thousands of the enemy. Their slogan—"One man, one warship"—reflected that belief.

Designed to channel decimated air strength into maximum efficiency, the kamikazes had met with sporadic success. The Special Attack Corps, first a desperate replacement for Japan's shattered Navy, would become an integral part of the defense of the Ryukyu Islands, where they would burst from the skies and ignite what one observer would describe as "a hail of flaming terror and searing death."

When the skies cleared over the Ryukyus, more than 4,000 Japanese planes had been destroyed, 1,228 of them kamikazes. But America had paid a terrible price, with 34 ships sunk and 288 others damaged. The U.S. Navy had suffered its most costly campaign of the war.

However, the losses could have been far greater.

No matter how viewed, courage and valor in battle are never limited to only one side. For Americans, their courage lay in the gallant efforts of Navy men to keep disabled ships afloat that day—efforts typified by the officer who was the senior man alive on a destroyer under kamikaze attack at a remote picket station. The last message he sent from the stricken ship was a battle report to the flagship, the carrier USS *Bunker Hill* (CV 17).

Closing, he said, "I am an ensign. I have only been on this ship for a little while, and have only been in the Navy for a little while. I will fight for this ship to the best of my ability. Forgive me for the mistakes I am about to make."

Similar words might have been uttered by the young Japanese pilot of the Special Attack Corps the night he rocketed through the sky and crashed into the barren, sandy island of Sorlen.

Forgiveness and honor most certainly were given to the young American ensign. And, the kamikaze's superiors—his gods—would forgive him, for most certainly he was a novice and he had but one chance.

As Admiral Marc Mitscher (CTF 58) said bluntly, "There are no experienced kamikaze pilots."

Museum in Philippines

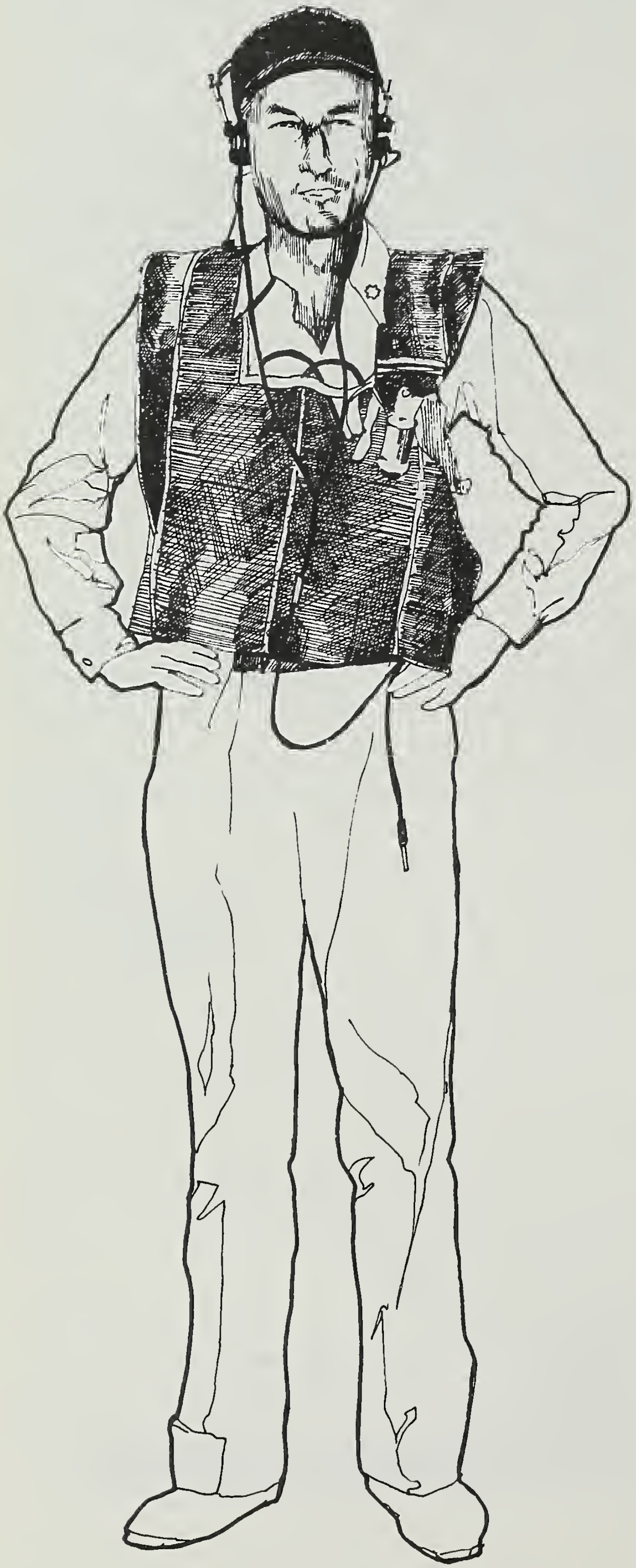
In an account of the kamikaze, Vice Admiral C. R. Brown said "Among us who were there in the Philippines and at Okinawa, I doubt if there is anyone who can depict with complete clarity our mixed emotions as we watched a man about to die—a man determined to die in order that he might destroy us in the process.

"There was a hypnotic fascination to a sight so alien to our Western philosophy. We watched each plunging kamikaze with the detached horror of one witnessing a terrible spectacle rather than as the intended victim."

These words are found in a museum in the Philippines honoring the memory of kamikaze pilots. Also, a marker has been erected in a sugar cane field 60 miles north of Manila, site of a Japanese airfield from which the suicide pilots took off during the war.

Neither the words nor the marker are meant to specifically glorify the kamikaze. Rather, they are intended to serve as a lasting tribute to those who died for their convictions.

As the world has changed—generating respect for different countries, cultures and people—attitudes have changed to the point where former enemies, such as the United States and Japan, can, and do, become friends and staunch allies. ⚓



A one-man air squadron

BY JO3 KEN ORNICK

A name is more than a moniker when it conveys an interesting story. Such is the case with Brewer Field at Naval Air Station, Agana, Guam.

Dedicated to one of the true heroes of the "Marianas turkey shoot," Brewer Field had its beginning in June 1944.

Guam was occupied by the Japanese who were using the island to extend the operational capabilities of their carrier-based aircraft, and the U.S. Navy carrier USS *Essex* (CV 9) was ordered to thwart the enemy's plans.

Fighters were launched from her deck and Commander Charles Brewer, Jr., commanding officer of Fighter Squadron 15, was credited with sinking an enemy destroyer using only his plane's machine guns.

Following that encounter, *Essex* steamed all ahead full in search of Japanese carriers. By the morning of June 19, *Essex* had not established contact. It was feared that an attack could be momentarily launched against her if Japanese carriers were lurking just outside radar range.

CDR Brewer led a patrol of 11 fighters to detect and engage the enemy if an attack seemed imminent.

U.S. suspicions were confirmed shortly thereafter—enemy aircraft were airborne southwest of *Essex*. The Japanese force consisted of 16 bombers and 24 fighters. Brewer directed his patrol to attack as the Japanese bombers began to scatter and the Rising Sun fighters jockied for position. Within minutes, Brewer's guns had downed the enemy strike leader and three fighters. The Japanese dispersed and Brewer's squadron returned to *Essex*, victorious.

Late that afternoon, Brewer led another patrol over Guam which was to strafe the Japanese and prevent them from using the airstrip as a staging area. In the course of the initial attack, one Japanese fighter was destroyed as it tried to land.

Then Brewer's luck turned. Twenty Japanese fighters dived on his patrol from the rear. Piloted by the best airmen in the Japanese Navy, each fighter bore a special insignia attesting to the pilot's skill.

Fighting was frantic as the enemy made well-disciplined and coordinated attacks. Though the Japanese formation's leader was downed by Brewer, the fight continued and the American patrol was caught in the twisting combat, fighting to survive. Finally extricating themselves from a situation turned bad, the patrol returned to *Essex*, but Brewer was not among the surviving pilots.

No one knows his fate, though there were reports that he crashed into the sea.

The last line of the plaque dedicating the airfield in Brewer's memory expresses more than the appreciation of a grateful nation: "His example of courage, leadership and selfless devotion to duty will live on in the memory of all who fly from this field."⚓

Rights & Benefits

Earning Credits Through SOC

Servicemen's Opportunity Colleges (SOC) make it easier than ever for Navy people to earn a college degree while on active duty. SOC is unique because it is an arrangement between a national group of accredited colleges and the military which enables people on active duty to achieve a college degree. More than 350 accredited public and private institutions now honor college-level work completed by service members before and during active duty.

Each Servicemen's Opportunity College bases its admission requirements on present academic ability, recognizes GED high school diplomas, and allows individual consideration for students in exceptional situations. SOC colleges are really a network of institutions that make a commitment to serve the special needs of military men and women. In this respect, participating colleges offer the following advantages to Navy men and women.

SOC colleges try to be more flexible in scheduling classes.

In case of transfers which could interrupt course work, departing students are allowed to take early exams or continue their studies through correspondence or independent study.

In event of TAD orders or watch-standing duties, SOC colleges are more liberal in providing makeup work.

Academic counseling is provided and recognition is given to the learning value of military experience.

Credits earned at accredited colleges or universities are counted toward a degree if they meet the degree requirements. SOC colleges have developed residency requirements that are more relevant to the high mobility of military students.

Credits earned both on and off campus count toward residency requirements if earned under the institution's sponsorship. Exceptions to this basic residency requirement may be granted when unusual circumstances warrant.

Participating colleges and universities do not have to accept any individual who wishes to apply, but acceptance guarantees that each application will be judged on the basis of ability rather than availability. In other words, the institutions do not have to waive their academic admission requirements in order to participate in the program.

An added feature of the Servicemen's Opportunity Colleges program is the "contract for degree" option offered by many of the participating institutions. This option works like a traditional credit transfer, only in reverse. Instead of getting a degree from the last institution attended by attempting to transfer all previous credits, a student decides from which institution he wishes to receive his diploma early in his college career. Credits earned at other institutions are transferred to the selected institution, which serves as a repository for all the student's academic records and which awards a degree upon fulfillment of the contract.

Navy men and women interested in attending a SOC college should contact either their education officer or the local Navy Campus for Achievement Advisor (NCFA) for details and a listing of the SOC institutions. ⚓

Mail Buoy

Anchor Weight

SIR: I noticed what I believe to be an error in the October 1977 issue of ALL HANDS. The caption to the photograph on the cover states the anchor chain of the USS *John F. Kennedy* (CV 67) is "a 180-fathom chain, each link weighing in at 160 pounds."

Being a Plankowner of USS *Nimitz* (CVN 68) and well-remembering the ship's Familiarization Qualifications, I believe the correct weight should be 360 pounds per link.—S. E. Tourtellot, YN2, USN.

- *You are correct. We are still searching for the 200 pounds per link we lost between here and the printer.*—ED.

Was It Really?

SIR: Concerning your "Stern Shots" in the November issue of ALL HANDS, USS *Hartford* was Admiral Farragut's flagship, but your illustration at "A" is of a ship of the line—not a screw sloop. The picture is small, so details are hard to spot, but since I don't believe we ever had any steam-powered ships of the line, is it really British?—Tyrone G. Martin, CDR, USN, 57th in command of USS *Constitution*.

- *You are right. The ship illustrated is not the USS* Hartford. *We contacted both Naval History and Warship International who agree the ship is probably British but this is not a certainty.*

They also add that the photo is of a small ship of the line with less than 80 guns.—ED.

More Research

SIR: In reading the December 1977 issue of ALL HANDS, I found the article on "Brain Wave Research" of great interest. I also appreciated the mention of some of our work here at the Naval Academy.

As a matter of interest we at the Academy have *the* best neurological signal analysis real-time laboratory in the country. Some of the more notable accomplishments include: the measurement of the speed of the brain—with this technique we can tell, with 100 percent accuracy, whether reading difficulties are neurological or academic in origin; we can predict performance at the Naval Academy with as great an accuracy as the combination of the math and college board scores; we can determine whether a person was born left- or right-handed, and recognize the neurological signature of minimal brain dysfunction.

All of these are in addition to some of the long-range work we are doing on the advanced identification of neurological disorders several decades in advance of their normal appearance. . . .—Karel Montor, Ph.D., associate professor, U.S. Naval Academy.

Right Arm Rates

SIR: I am seeking information on the right arm rates in 1940, 1941, 1942 and 1943. In 1943 I think they went to the left arm. There is one rate I am particularly interested in. I would like to know if the Aviation Machinist's Mate rate was ever worn on the right arm. This matter has caused quite a disturbance where I am employed.—Mrs. Lois Hughes, Jacksonville, Fla.

- *We offer the following in hopes it will quell the disturbance at your place of employment: Right arm rates signified men of the Seaman Branch. The following ratings comprised the Seaman Branch during the World War II period: Boatswain's Mate, Turret Captain, Signalman, Gunner's Mate, Fire Controlman, Quartermaster, Mineman and Torpedoman's Mate.*

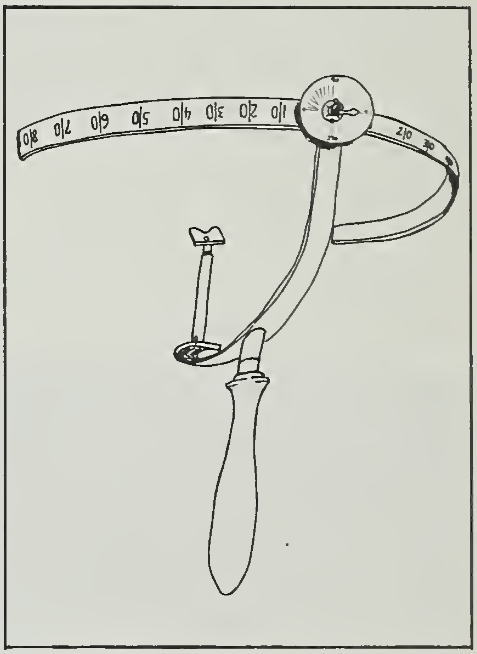
Right arm rates were disestablished on April 2, 1949. Aviation Machinist's Mate was not a right arm rate.—ED.

What Is It?

SIR: I have an item that was washed up by Hurricane Carla, and I am curious about it. It appears to be navigational equipment so I thought perhaps you could help me.

All except the handle is made out of metal. The handle is made from wood, painted black and is about 6 inches long. (see illustration). The disk on the top is one and three-quarter inches in diameter. It is numbered in 15 degree increments, up to 360 degrees.

The half-circle arm to which it is attached is numbered from 0 to 90 on each side. The degrees on the disk are changed by swiveling the half-circle arm, which will swivel in a complete circle in either direction. Written on top of the disk are the words, "E. S. Meyerowitz," apparently the name of the company that manufactured the instrument.



I would appreciate any information you may have as to the application of this instrument, when and where it was made.—Ralph Spence, Tyler, Tex.

- *Our search for an answer to your question led us first to the Naval Supply Systems Command. They were as puzzled as you over the instrument's identity and suggested we send your letter and sketch on to the Naval Observatory, which we did.*

Although the people at the Observatory could not come up with an answer, they did suggest we contact Mr. Saul Moskowitz of Marblehead, Mass., a specialist in nautical instruments. Here is the essence of the reply received from him:

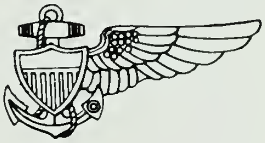
". . . Meyerowitz is a New York City eyeglass firm; still in business. The object in question is a circa 1900, or later, device for measuring angular field of vision of a person being tested for glasses. In perfect condition it has no historical, antique, or monetary value. In less than perfect condition, it is worth even less."

Scratch one find.—ED.

Stern Shots

The following badges and emblems indicate special designations which Navy people wear to denote qualification in certain specialties or branches. Can you identify all of them?

A.



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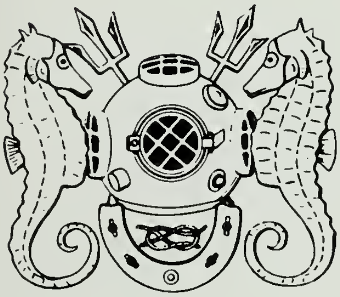

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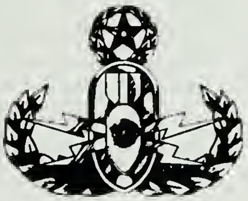

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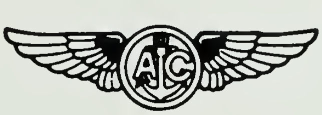

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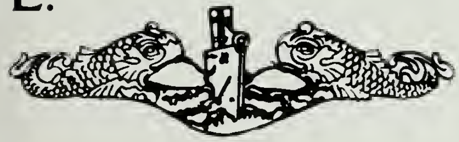

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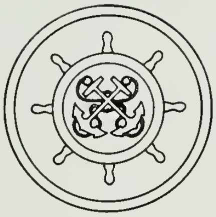

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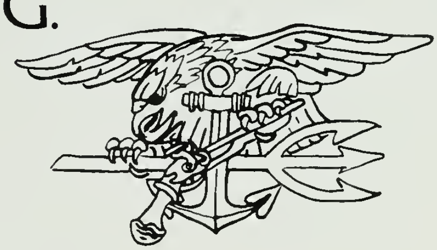

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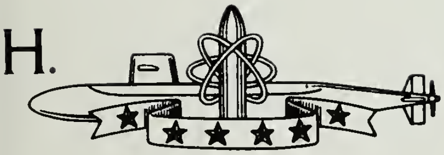

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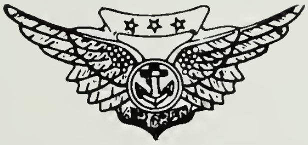

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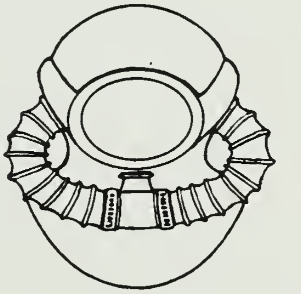

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Answers: A – Balloon Pilot; B – Master Diver; C – Master Explosive Ordnance Disposal; D – Aircrewman; E – Submariner; F – Craftmaster; G – Special Warfare; H – SSBN Deterrent Patrol; I – Combat Aircrewman; J – Scuba Diver

Johnston Blakely

Captain, USN

During the War of 1812, the sloop WASP, 18 guns, one of our nation's most colorful fighting ships, mysteriously vanished at sea. Aboard was Irish-born CAPT Johnston Blakely, her skipper and a master ship handler. He had one of the best trained crews in our infant Navy.

WASP's disappearance suggests that fate obliged the British by accomplishing a task which they themselves could not complete.

On May 1, 1814, WASP slipped her moorings at Portsmouth, N.H., and showed up soon thereafter in the English Channel where she spread terror among British shipping. She took many valuable prizes and with great cunning attacked and soundly thrashed two brig sloops in separate engagements. The first encounter was with H.M.S. REINDEER; the second was H.M.S. AVON. Both were destroyed.

This spectacular, but ill-fated cruise, lasting less than six months, is likened to a flare which, bursting into flame, brightly lit a few pages in history.

On Sept. 21, 1814, WASP seized her last prize, a brig, which was sent to Savannah with reports of Blakely's operations to date.

On Oct. 9, WASP was hailed by the Swedish brig ADONIS. On board were two American officers who were transferred aboard. This was unfortunate in that WASP sailed away and was never seen or heard from again.

CAPT Blakely began his naval career as a midshipman on Feb. 5, 1800. He was 33 years old when WASP was lost. Ironically, he never heard that he had been promoted in rank to captain.

ALL HANDS

APRIL 1978

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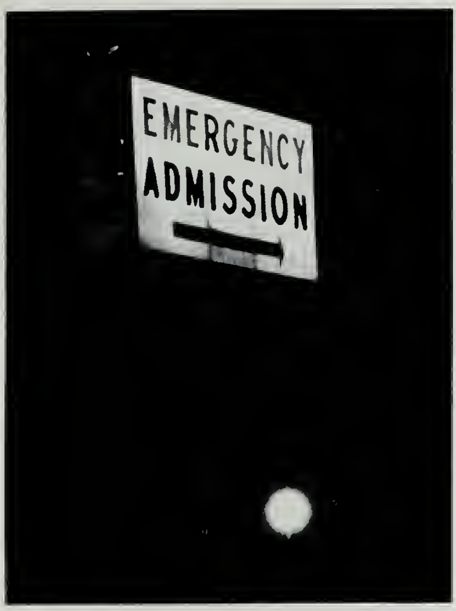

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Covers

Front: One of the works of Navy Combat Artist Arthur E. Beaumont, first American artist to execute paintings in Antarctica. See page 13.
Left: Gunner's Mate Seaman David Jutz greases the gun barrel chase of one of the two five-inch gun mounts on the destroyer USS Hull *(DD 945).*

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Currents

President's Pay Commission Makes Final Recommendations

● The President's Commission on Military Compensation recently decided on its final recommendations to President Carter for the reform of the military pay and benefits system.

Retirement

A non-contributory retirement plan will be recommended to the President with the following features:

1. Eligibility for retirement pay:

Completed years of service	Payments begin
10-19	Age 62
20-29	Age 60
30 or more	Age 55

2. Retirement pay is calculated by multiplying the base income (an average of the highest three years of basic pay) times the appropriate sum of multipliers from the following table:

Years of Service	Per year multipliers
1 to 5	2 percent
6 to 10	2.25 percent
11 to 35	2.75 percent

Example: (Member leaves upon completion of 15 years' service).

5 x 2 percent	10 percent
5 x 2.25 percent	11.25 percent
5 x 2.75 percent	13.75 percent
	35 percent x base income equals annuity at age 62.

Comparable results for other years of service:

Years	
10	21.25 percent x base income equals annuity at age 62
20	48.75 percent x base income equals annuity at age 60
25	62.50 percent x base income equals annuity at age 60
30	76.25 percent x base income equals annuity at age 55

Social Security will be integrated with the proposed retirement plan and retirement pay adjustments will be tied to the Consumer Price Index (CPI) to protect against inflation.

Health Care, Exchanges and Commissaries

Health care, exchange and commissary benefits will be extended to former servicemembers who have qualified for retirement pay after 15 or more years of service. Those personnel who retire with 25 or more years of service with from 15 to 24 years of service will be entitled when their retirement pay begins at age 62 or 60.

Military/Civil Service Retirement

Under the proposed retirement plan, military annuities and civil service annuities are fully coordinated. No one may receive a military annuity while working for civil service, but annuitants have two options for old age retirement:

1. Credit military service to civil service system and receive old age annuity after leaving civil service based on combined military and civil service years of service, average high three years of civil service salary, and the civil service formula.

2. Credit civil service years to military system and receive old age annuity after leaving civil service based on combined military and civil service years of service, average high three years of military basic pay adjusted for CPI, and the military formula.

Trust Fund

A deferred compensation trust fund, separate from the retirement system, would be established under the commission's proposal to aid former servicemembers with 10 or more years of service in their adjustment to careers in civilian life. Members who die or leave active duty before eligibility would have no entitlement to payments. After five years of service, a member begins receiving trust fund credits based on percentages of basic pay indicated in the following table:

Years of Service	Percent of Basic Pay
6 – 10	20
11 – 20	25
21 – 25	15
26 – 30	5

After 10 years of service, a member has several options:

1. Withdraw credits in installments over a specified time.
2. Leave all or part of the credits in the trust fund to continue accumulating interest for later withdrawal.
3. Use all or part to establish or supplement a retirement annuity.
4. Under certain limited conditions, withdraw credits as a lump sum.

Severance Pay

Under the new system, members who are separated involuntarily after five years of service and with less than 30 years of service would receive severance pay according to the following formula: one-quarter month's basic pay per year for years of service up to 10; one-half month's basic pay per year for years of service from 11 to 30, up to a maximum of 12 months' basic pay.

A servicemember who has begun his second enlistment, or (in the case of officers) continued past an initial term of obligated service, or has entered the fifth year of service would be permitted to retire under the old rules, if the new system is enacted. All others would come under the new system.

Basic Pay

The commission decided against recommending the substitution of a salary for basic pay and allowances and will recommend an annual aggregate increase in Regular Military Compensation (RMC) equal to the average percent increase given to civil service employees, as is now the practice. The commission believes that the Secretary of Defense should have discretionary authority to propose, within RMC, differential allocations of the annual pay raise as a way to address the problems of personnel shortages or surpluses.

Bonuses and Allowances

The commission also will recommend that all differential pay (special and incentive pay as well as bonuses for enlistment or reenlistment) should be designed to prevent or alleviate manning shortages and to incease the flexibility of personnel management and that a variable basic allowance for quarters be adopted to reflect geographical variations in the housing costs.

The commission's recommendations include the awarding of longevity pay increases to individuals based on time in grade instead of time in service to enhance the pay of superior performers and the extension of travel-related entitlements to junior enlisted servicemembers.

The widespread dissatisfaction among military members, retirees and their families with the present health care system was noted by the commission. The committee recommended that a thorough study of the military health care system be conducted.

For more information about the President's Commission on Military Compensation and what SecNav and CNO told them, see the February 1978 *All Hands.*

Deputy Comptroller Talks Pay

Rear Admiral James R. Ahern, Deputy Comptroller of the Navy, was previously Commander, Navy Accounting and Finance Center and Assistant Comptroller of the Navy (Financial Management Systems). And, recently, he was selected as the first military recipient of one of the Financial Management Improvement Awards sponsored by the Joint Financial Management Improvement Program. Drawing on his many years of experience in the field of finance, the admiral talked with ALL HANDS *about the Navy's pay system, pay innovations on the horizon, financial management, and retiree pay. What follows are his observations on the subject most dear to our hearts—pay.*

Q: Admiral Ahern, now that JUMPS (Joint Uniform Military Pay System) has been in operation for more than a year, you have had an opportunity to evaluate it and gauge its effectiveness. Is the Navy pay system providing accurate, timely accounting data?

A: Your question goes right to the heart of the basic reason JUMPS was created: to provide more accurate and timely information with which to manage better the Military Personnel Pay Appropriation.

Before JUMPS, forecasting pay and obligating the pay appropriation was possible only on an historically based "guesstimate" since pay was both calculated and paid by more than 500 disbursing offices afloat and ashore. And since our people, particularly when deployed, prefer to let their pay accumulate, and pay records were not balanced out and were mailed in only twice a year, it was a long time before we knew how much we actually were spending.

Under JUMPS, our 500 field disbursing offices are still holding payday but now everybody's pay is being calculated at Cleveland well in advance of payday. This accrual approach permits us to obligate the MILPERS appropriation on a much more timely basis. Further, while our field DOs still make quite a few changes to reflect promotions and other pay entitlements occurring between the Cleveland calculation and payday, the next calculation by Cleveland reflects these changes.

The "bottom line" is the fact that, while we still have differences between estimated and actual amounts paid because of long mail turnaround times between Cleveland and the field, we have closed the obligation/expenditure gap from well over 180 days down to about 45 days.

Q: Does the system reduce mathematical and interpretative errors inherent in the previous type of system used since 1944?

A: In addition to closing the time gap, central pay calculation by computer has greatly increased pay accuracy. Before JUMPS, over 2,000 military and civilian disbursing clerks used desk calculators to make the many mathematical calculations required to arrive at the amount of pay due. In spite of their dedication, to err is human, and our folks are no exception. In fact, keeping a calculator on top of the desk on a rolling destroyer is hard enough, let alone trying to use it.

Of course, accuracy problems also arise when it comes to interpreting pay entitlements. For example, an inexperienced pay clerk might not remember that no more than two types of incentive pay (like demolition and diving pay) may be paid for the same period of time and, consequently, overpay a man by posting three kinds of incentive pay. If the pay clerk forgets this rule, an overpayment occurs. Under the manual pay system, overpayments like these often continued for many months before eventually being detected. This made it really tough on our sailors who had spent money they had to pay back.

These types of errors in interpretation of the rules and mathematical errors in calculating pay are eliminated under JUMPS because of computerized computations and built-in edits and validations.

Q: Then JUMPS is an error-free system?

A: Now don't get me wrong. Some over and underpayments still occur under JUMPS, largely because military pay and allowances are based on extremely complex legislation, and it is most difficult to make timely changes to such a complex system. The net result is temporary erroneous payment forecasts for some of our service members. However, most of these errors are now corrected the following month by the automated system at Cleveland.

> ". . . I believe there is less total work required of our DKs and DOs."

Q: Does JUMPs lessen paperwork on the part of DKs and DOs?

A: The folks on the firing line may disagree, but I believe there is less total work required of our DKs and DOs. They still need to maintain a copy of the Leave and Earnings Statements (LES) and wrestle with making entitlement adjustments caused by time lags between the Cleveland calculation date and the next two paydays. And this is no small task. Over 40 percent of our servicemembers have a pay entitlement change between the monthly LES computation (which forecasts the next two paydays) and the actual paydays. Plus, it is always frustrating to be in a corrective rather than constructive mode when dealing with people's pay.

On the other hand, two major, labor-intensive processes have been taken out of the field. The semi-annual pay record transition, whereby all old pay records were closed and new ones opened every six months, has been eliminated, and the annual preparation of income earning statements (W-2s) is now done at Cleveland.

Before JUMPS, Christmas was not a holiday period for disbursing people. Last Christmas—our first under full JUMPS—several finance offices called to express appreciation for the chance to share in the holiday leave period.

Q: Does JUMPS also provide a better financial planning tool to individual Navy members?

A: There is no doubt the monthly LES issued to our servicemembers provides a good tool to assist in financial planning since it sets forth sources of funds (pay entitlements in blocks 17 through 25) and fund uses (allotments/deductions in blocks 26 through 43). But, it doesn't or can't be expected to do the whole job. Only the servicemember has the full knowledge required to make complete financial forecasts for the months and years ahead. For example, the member has to add plans for disposing of net income (amount to be paid in block 57) for discretionary items, such as entertainment, as well as contractual liabilities, such as paying off a car or other loan.

> "LES . . . is helping our people become more conscious and knowledgeable about their personal finances."

But, the LES is a good start. I believe it is helping our people become more conscious and knowledgeable about their personal finances, and we added further information to the LES in February as part of the Navy's efforts to make our people more aware of the value of military compensation and benefits. Specifically, the remarks block on the JUMPS' LES now explains the value of the tax advantage associated with the non-taxable quarters and subsistence allowances.

Q: Sir, JUMPS has initiated beneficial changes in the pay system. Is it the "last word" in pay systems or is something better already in the planning stages?

A: In my opinion, JUMPS is far from the "last word" in pay systems. Although a big improvement, it is a labor-intensive, voluminous, hard-copy paper system employing slow mailbag communications between BUPERS, Cleveland, and more than 3,000 personnel and pay offices.

But the central pay computation capability provided by JUMPS was an excellent investment because it gives us the principal tool required to take advantage of Electronic Funds Transfer (EFT) technology. By EFT technology, I mean the capability to make direct deposits of pay through electronic means to commercial financial institutions for deposit to the individual accounts of members. This technology will also provide the capability to pay members directly from the central site in Cleveland.

The Air Force is the front-runner in the use of EFT. However, for the Navy to reach this goal, we have to build first a personnel and pay activity network with rapid data-transmission capability. I am pleased to add, this effort is well underway.

Under the leadership of Vice Admiral James D. Watkins, Chief of Naval Personnel—under a project called PASS (Pay/Personnel Administrative Support System)—we are now consolidating and combining the 3,500 personnel offices and 150 disbursing offices ashore into less than 50 offices called Personnel Support Activities. These offices will have mini-computers with telecommunication links to Cleveland and BUPERS central computers. It is this "real time" communications linkage which will permit us to pay directly from Cleveland. The PASS project will give us quite a few additional benefits.

Q: What are some of the benefits, admiral?

A: Of primary interest to our servicemember is the "one stop shopping" aspect of PASS. Instead of being bounced back and forth between personnel and pay offices, a member will be able to get an answer by visiting the branch office nearest his or her place of work which will have an "on line" cathode-ray tube (CRT) connection with the regional Personnel Support Activity (PSA).

In fact, in addition to personnel and pay matters, we have already decided to put the passenger transportation office in the PSAs and I think other similar personal service functions will be added as we go along. For the Navy, the savings coming out of the consolidation can be redirected to the operating forces.

Q: Are there other changes in the pay system which are being contemplated at this time?

A: Of course, the big problem with going to a central pay system is servicing our sailors at sea. Obviously, if a servicemember elects to send his pay to a financial institution because of the convenience, earnings on his account, or to take advantage of features such as personal bill paying, we will have to expand our personal check cashing service afloat. Further, I can see the day when we will be using automatic teller machines aboard ship which will permit the member to draw cash when he needs it. The Naval Sea Systems Command already has a project underway to put small non-tactical computers on ships and they are also studying the feasibility of using automatic teller machines afloat.

In short, unlike our operational areas, we continue to lag behind technologically in the design and operation of our logistics and personnel systems, but we are on the move.

Q: While the furturistic elements of the pay systems now in the mill are interesting, they would seem to require a greater awareness of personal financial planning than is now necessary. If this is true, what can the Navy do to help individuals acquire elementary knowledge about planning their own affairs?

A: We already have some indications that some of our unauthorized absence and retention problems are related to the way servicemembers handle their personal finance problems. In fact, we have just completed a study which shows there is a high correlation between unauthorized absence and indebtedness. So, we are evaluating what we can do to help.

> ". . . there is a high correlation between unauthorized absence and indebtedness."

We are off and running on an internal educational information program. You folks have already published articles in both March and September of last year in ALL HANDS and developed a fine follow-up program.

So, while we are generating servicemember interest in the importance of personal financial planning, there appears to be no substitution for training in the rudiments of financial planning; i.e., "how to's" such as building a financial forecast of mandatory and optional income and expenses, reconciling checking accounts, and using credit cards.

It would be great if high schools throughout the country would recognize that when a person graduates, he, in a sense, becomes his own business and needs education in how to run that business. I understand that some high schools in the Washington, D.C., area are doing just that.

Q: Is the Navy, in general, educating its people along those lines?

A: Well, we still have to deal with the problem of how to help. Currently, one hour of boot camp is devoted to this area. But, my opinion is there is no way to do the job adequately without devoting one or two days of basic training which is already too short to get adequate preparation for sea duty.

So we are exploring a number of other training alternatives, including development of correspondence courses, and training films for use at appropriate ships and stations. We will work with the Director of Naval Education and Training, BUPERS, and other appropriate offices of the Navy in developing the tools to get the job done.

Q: Finally, admiral, ALL HANDS occasionally receives letters from retirees who complain that sometimes their checks are not on time. They wonder what, if anything, the Navy plans to do to "streamline" its pay system, just as it has done with active duty pay?

A: I'm glad you asked this question and I wish "streamlining" was a good near term solution. For we are certainly having our problems keeping up with the growth in our retired and survivor communities.

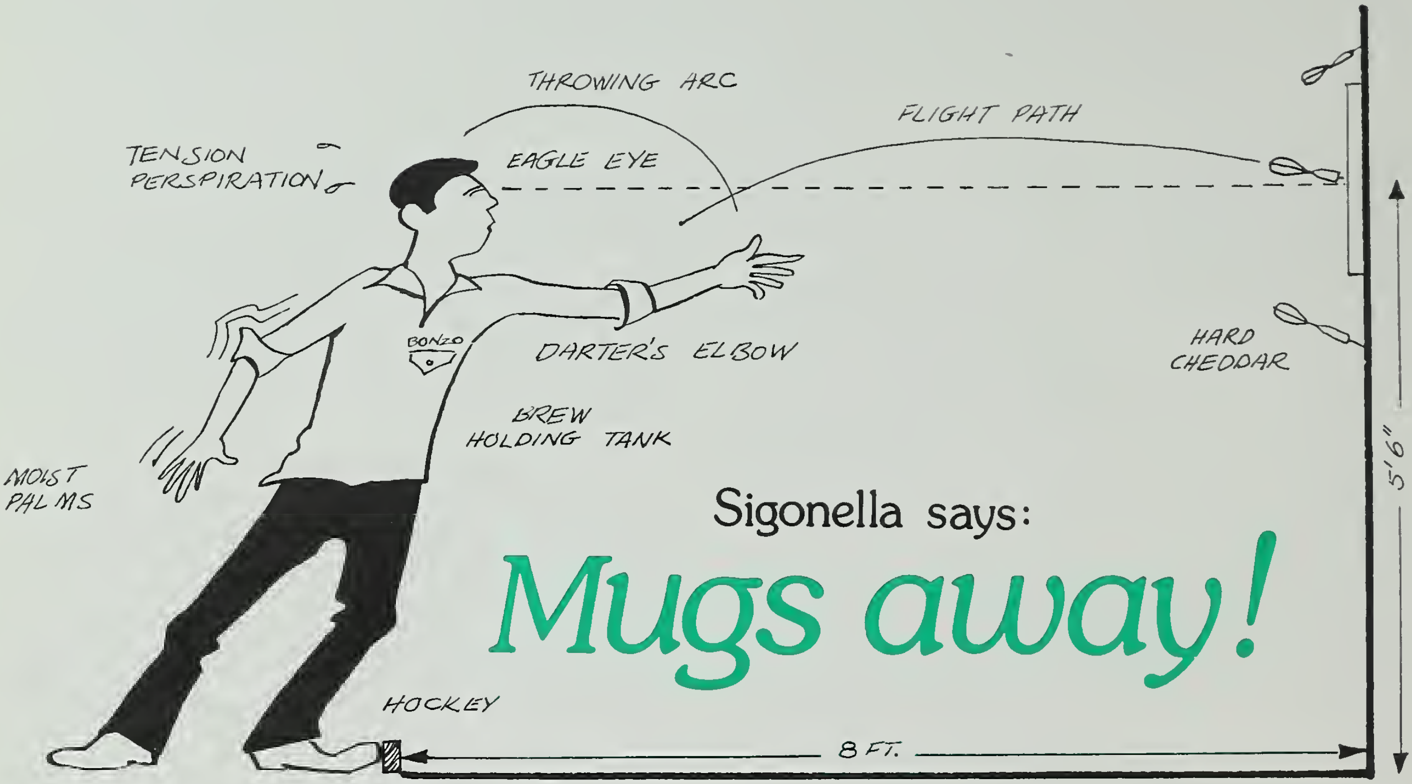
This growth, together with continued legislative change, has out-paced the personnel resources we have available. As a result, we are far too frequently late with that first retired pay check and far too slow in answering correspondence from our retired people.

We now have some DKs to help us catch up with the backlog. We are doing better. But, we still have a long way to go.

Regretfully, JUMPS does not transfer over to a modern automated retired pay system, so we are still using a 1960s era automatic data processing system to serve a 1978 market which has grown 220 percent since 1960. But, we have 18 people working away at designing a new automated system. Regretfully, though, this effort will take several years; in the meantime, retired pay processing will remain labor-intensive.

We are doing our best by working with BUPERS to speed up the papers required to open up a retired pay account, installing a customer service branch for our retired personnel, and using a quick post card reply system to let our retiree know we have at least received his correspondence and that we are doing our best to respond.

JUMPS, as with any new system, is not without its problem areas. RADM Ahern and his staff are constantly seeking ways to improve the system and correct deficiencies. You can help by contacting your disbursing officer immediately when you detect a problem in your LES. Individual cooperation is essential if the Navy is to stay a jump ahead of JUMPS. ⚓



Sigonella says:

Mugs away!

BY JO2 DAN WHEELER AND
JOC TOM JANSING

Some Navy people at NAF Sigonella frequently squeeze three-in-a-bed. Others seem to have chronic cases of hard cheddar. Yet most, like darters everywhere, hurl an occasional ton, too many bed 'n' breakfasts, and not enough corks when they middle for diddle.

The 235 serious darters at the station are representative of more than four million Americans who regularly toss their arrows at sisal hemp dartboards mounted either seven feet six inches away or eight feet away, depending on local rules. Fact is, darts may be America's fastest growing sport. Conrad Daniels, an American champion, claims that darting has been growing three times faster than either tennis or golf. It's no wonder that Navy people, always ready for a challenge, have taken to the game in all parts of the world.

The Sigonella Dart Association is only one of many Navy darting clubs ashore and afloat. One sailor stationed at Navy Recruiting District One in Scotia, N.Y., not only admitted to being a darter, but also immodestly proclaimed, "When you mention this command, you're talking about the New York champions."

Naval District Washington sponsors a tournament annually to which many commands send up to 10 representatives to compete at the traditional game of "301." They toss darts at NAS Brunswick, Maine, on some ships homeported in San Diego, and all points in between. From Tokyo to Sigonella, you have only to look—and usually not too hard—to find a ton (100 points) being shot and a loser getting a bit of hard cheddar (sympathetic consoling).

"I started throwing darts about three years ago when my husband and I were stationed in Naples," said Mrs. Dee Lansford, wife of Chief Aviation Electronics Technician Charles Lansford. "When we were transferred here, we wanted to continue throwing but there was no equipment, no apparent interest, and no place to do it. I decided then and there to form a league."

That was more than a year ago. Today, the Sigonella Dart Association boasts a growing population of darting enthusiasts, and holds tournaments regularly. Of course, Mrs. Lansford had to overcome some major handicaps before a league could be launched. There was no place to play, neither the local community nor Navy Exchange carried professional-type equipment, and potential members had to work odd hours because of operational commitments.

A less dedicated darter would have pulled off her flights in dismay. "Not me," said Mrs. Lansford. "When I go out I always carry my darts in my purse just as I do my lipstick and wallet. I want to be ready in case I come across a dartboard." With such enthusiasm, how could she have failed?

The keel was laid by making a trip to the NATO dart association in Naples to buy some professional equipment. There Mrs. Lansford bought two "bristle" boards (originally boards were made of pig's bristles, but that gave way to synthetic fibers to avoid the inevitable stench) costing about $30 each, and a few sets of darts which range in price from about $5 for brass barrels to about $50 for the slimmer tungsten barrels preferred by many professionals.

"Anytime the VP squadron (VP-49, deployed at Sigonella out of NAS Jacksonville) flew to Naples," Mrs. Lansford said, "I hounded them to get *anything* they could for us. The problem was that every time the exchange in Naples got equipment, it sold immediately. If we didn't get someone there at just the right time, we missed out."

Later though, she discovered that an association member had a mother-in-law living in London. (In England, darts is second only to fishing in popularity as a national pastime, and the world's most prestigious tournament, The News of the World, is staged there annually.)

"Now whenever we need supplies, we send a list to her and she gets our supplies downtown and mails them to us," Mrs. Lansford said. "We do so much business with one London shop that it now gives us a quantity discount." Demand for darting equipment at NAF Sigonella became so great that now the Navy Exchange and the Rod and Gun Club both carry a good supply of top-quality items.

The space-to-play problem was solved when the manager of the chief petty officer's club volunteered a portion of the building for regular meetings and tourneys. Eventually it became common knowledge that Sunday afternoons at the CPO club meant darting. Arrangements were made so that participants didn't have to be chiefs to play at the club, though all did have to be 18 years or older because of club rules.

The final consideration was how to schedule tournaments so that a maximum number could compete in spite of odd working hours. It was decided to hold the jousts at the same

It's a game of skill

Scoffers sometimes claim that darts is a child's game, a gambler's game or, at best, a foolish pastime because it is purely a "game of chance." Not so, says Leeds Magistrate's Court of England. Darters the world over owe a debt to "Foot" Anakin who fought the law and elevated darts, legally, into the realm of skill. It happened like this.

Before World War I, in England, it was illegal to operate games of chance in pubs, taverns, or anywhere else for that matter. Dartboards, however, could be found in any workingman's local and every bloke worth his salt tossed a mean dart. It was a matter of national pride. No one ever considered darts a game of chance until the Leeds Magistrate's Court took its first interest in the game since the Middle Ages.

In 1908, "Foot" Anakin, a tavern owner, was arrested for presiding over a game of chance on his licensed premises and hauled into court to answer for his crime. The case had everything but "sex" and the darting populace was up in arms over this indignation.

"Foot" was prepared to answer the charges. He requested that the magistrate allow him to demonstrate with a dartboard and arrows that darts was not a game of chance but a game requiring the utmost skill. The magistrate agreed to the exhibition.

After removing his dartboard from his pub, he set it up in the court, stepped back eight feet and fired three darts into the treble-20 bed. "Foot" invited the magistrate to take a crack at it.

The bewigged worthy declined but ordered a clerk to try.

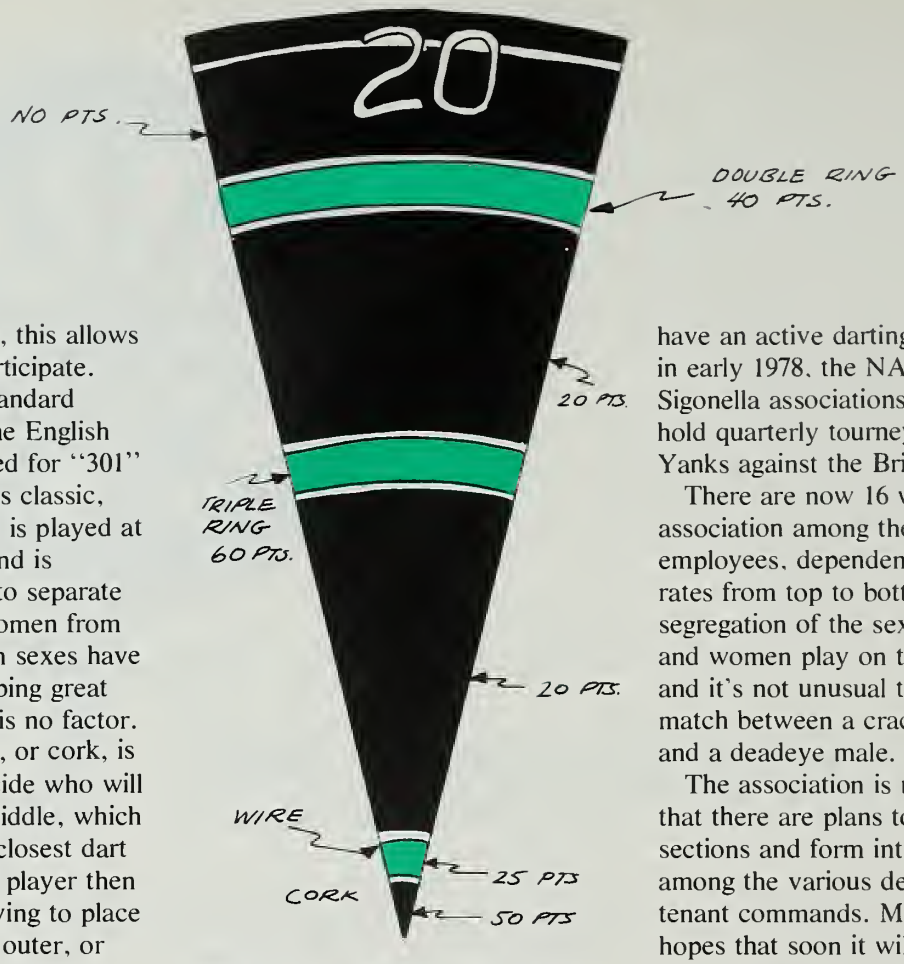
The clerk threw two darts into the ornate woodwork and the third many beds away from the 20.

"Foot" stepped up again and tossed three double-20s.

"Could you do that again?" asked the magistrate.

"Aye," said England's hottest darter, and he did.

"Case dismissed," said the magistrate and darts acquired legal status as a game of skill and was legitimized under the law.



time each Sunday. In time, this allows practically everyone to participate.

Though more than 40 standard games can be played on the English board, the association opted for "301" as their tourney game. This classic, often called English Darts, is played at most major tournaments and is considered by champions to separate the men from the boys, women from the girls—for, indeed, both sexes have an equal chance at developing great proficiency since strength is no factor.

In "301," the bull's-eye, or cork, is seldom used except to decide who will be first—they middle for diddle, which means the thrower of the closest dart to the center is first. Each player then throws his darts in turn trying to place one in the board's narrow outer, or doubles ring, before he can begin to rack up points. Subtracting his score from 301 as he shoots, each player tries to reach exactly zero first. However, there is a catch. The final dart, like the first, must be thrown into the doubles ring and into a number that reduces the score to exactly zero. The entire game can be played in six tosses, but that's for experts. It takes most players 20 or more. The loser is called "mugs" and gets first shot next game. "Mugs away" is the traditional way of saying, "Go ahead, losers shoot first."

Though darts requires intense concentration and great hand-eye coordination to excel, most champions agree that with diligent practice and a will to win, most people can become "respectable" players within three months. Championship caliber, however, may take years to reach, if, in fact, it is ever attained.

In the United States there are more than 7,000 pubs and taverns that sport dartboards, and tens of thousands of recreation rooms. The main reason darters go to a tavern to play, according to Conrad Daniels, is not to drink—though many players do sip a few beers between shots—but "to be with friends, talk, and have a good time."

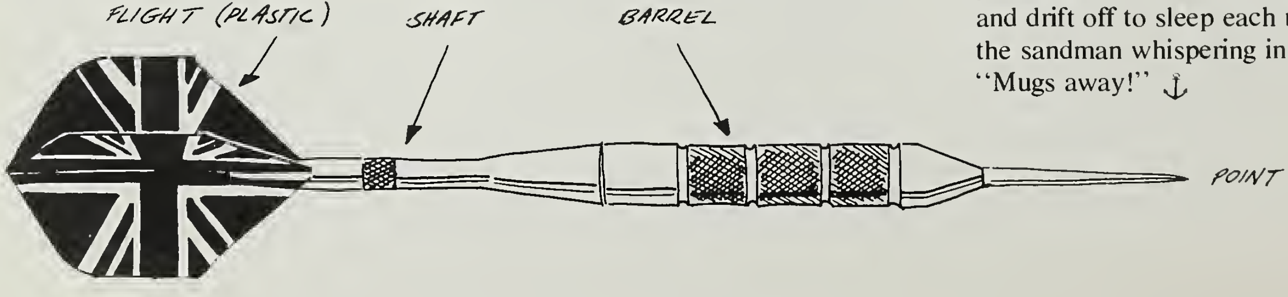
That style of camaraderie has not been overlooked by the Sigonella Dart Association. Indeed, they encourage it on an international basis. There are some British players attached to NATO Headquarters in Naples who have an active darting league. Starting in early 1978, the NATO and Sigonella associations are going to hold quarterly tourneys pitting the Yanks against the Britishers.

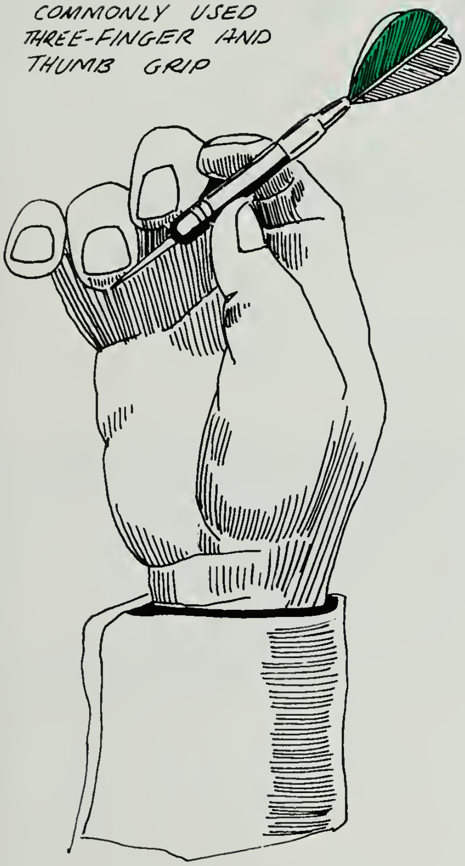
There are now 16 women in the association among the officers, civilian employees, dependents, CPOs and all rates from top to bottom. There is no segregation of the sexes either—men and women play on the same team and it's not unusual to find a head-up match between a crackshot female and a deadeye male.

The association is now large enough that there are plans to split it into sections and form intramural leagues among the various detachments and tenant commands. Mrs. Lansford hopes that soon it will be possible to form a league for teenagers and children as well.

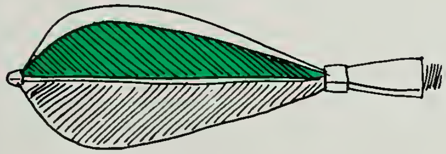
Things have come a long way since dartdom's humble beginnings in Sigonella last winter. Now, many sailors stationed there speak "darts" almost as well as they do Italian. Drop by the chief's club any afternoon after work and you'll find a dozen or more dedicated darters tossing patiently at the treble-20, trying to beat their opponents and practice for Sunday's contest.

It looks easy. Simply hurl a projectile weighing about an ounce at a pie-slice-shaped section (called a bed) on a dartboard eight feet away. Leaning over the hockey (shooting line) is even allowed to shorten the distance further. But you can't imagine how really difficult it is until you give it a try, become addicted, and drift off to sleep each night with the sandman whispering in your ear, "Mugs away!" ⚓

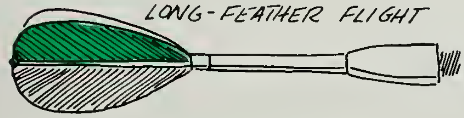




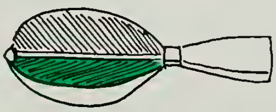
COMMONLY USED THREE-FINGER AND THUMB GRIP



FULL FEATHER FLIGHT



LONG-FEATHER FLIGHT



STANDARD FLIGHT

‘Swans on a lake’

The language of darts is a combination of hybrid Cockney slang, metaphor and phrases that “stuck” for no apparent reason except they sounded good. Darts has a formal name for every part of the board and every action in the game and a slang name for most as well. You can play without knowing the “slanguage” of darts, but it’s a lot more fun to shoot the winning point “on your knees” than it is to throw a double three.

- Arrow—a dart of any make, size, color or shape.
- Away—started; if the player hit a double six on his first scoring toss, that individual has “12 away.”
- Bed—any wired-in portion of the board, though most only consider a particular double or triple ring segment as being a bed.
- Bed ’n’ breakfast—the number 26 when scored by hitting a 20, 5 and 1; comes from the price of a bed and breakfast in Olde England which was 2/6d, two shillings and sixpence.
- Brush—a whitewash or skunk. Beating your opponent before he/she scores.
- Chucker—a very poor darter who rarely hits the board, much less his number.
- Clickety-click—the number 66; another example of Cockney-rhyming slang.
- Clock—the most widely used style of English dartboard.
- Cork—the bull’s-eye, bung, bunghole or button. In the game’s beginning stages, archers frequently threw sawed-off arrows at the heads of barrels, the center of which was sealed with a cork.
- Dinky-doo—Cockney for 22.
- Double-in—the requirement in “301” that each player must begin with a double.
- Downstairs—the lower half of the board.
- Fevvers—number 33, from the Cockney saying: “Firty-free fousand fevvers on a frush’s froat.”
- “Good darts”—a compliment paid any player who throws just that; it is expected that such shots will be accorded the recognition they deserve.
- Hard cheddar—“nice try.”
- Hockey—the shooting line from which all darts are thrown.
- Kelley’s eye—number 1.
- Married man’s side—the left-hand side of the board.
- Middle for diddle—the act of throwing for the cork at the start of a game to determine which individual or team will shoot first.
- Mugs away—“losers go first.”
- Swans on a lake—number 22; so called because of the shape of “22.”
- Ton—100 points; so called because of the “weight” it places on your opponent.”
- Ton-eighty—180 points on one turn acquired by throwing three darts in the treble-20 ring; highest possible score on one turn.
- Top o’ the house—the double-20.
- Wet feet—“Your feet are over the hockey unless you’re dangling your toes in the water or wearing your father’s boots.”

Rights & Benefits

Putting an end to harassment

BY MAJ. JOHN T. FISHBACH, USMCR

Harassment of servicemembers by bill collectors has been a common practice for years. This harassment is annoying, but can be particularly serious if the bill collector comes to a commanding officer in an attempt to pressure the member into paying.

This practice not only takes valuable time away from the commanding officer, but also may ruin the reputation of the person involved.

While no one should fail to pay just debts, Congress has acted to prevent some of the undesirable practices used by debt collectors, including that of badgering employers to force payment of bills. The Fair Debt Collection Practices Act, recently signed into law by President Carter, contains several provisions that should help end harassment and abuse.

Under the law, bill collectors are not permitted to contact third parties, including commanding officers, other than to ask about the identity and whereabouts of the person who owes a debt. The bill collector cannot tell a third party that the individual owes any debt or call any third party more than once, except to correct or supplement information received previously.

In contacting the debtor, bill collectors must make their calls between 0900 and 2000. If the individual has an attorney, the bill collector must contact the attorney rather than the individual.

If a person tells a debt collector in writing that he refuses to pay or that he wishes not to be contacted further, the collector is forbidden to contact the debtor except to tell him that there will be no further efforts made to collect or to advise the debtor that he, the collector, intends to use some legal remedy such as a lawsuit to collect.

Harassing or threatening conduct, use of obscene or profane language or repeated telephone calls intended to annoy debtors are forbidden. Misrepresentation of the collector's business or of any of the remedies which might be involved is also forbidden.

Post cards that can be read by other people must not be used by collectors.

Bill collectors must, within five days of initial contact, send the debtor a written notice telling the amount of the debt, the name of the creditor to whom it is owed and a request that the debtor acknowledge the debt.

Service people who do not believe they owe a particular debt should tell the collector in writing that they dispute it.

A Federal Trade Commission rule requires that consumers' defenses must be preserved even if a debt has been sold to a third party. That means that, even if the promissory note signed by an individual is sold to somebody other than the original lender, the debtor can still dispute the debt. For example, if a sailor or marine buys a car and borrows money from the car dealer, the fact that the car dealer sells the note to a bank makes no difference to the buyer. He can still dispute the debt if the car is defective.

The new Fair Debt Collection law, together with the Federal Trade Commission's rule preserving consumer defenses, should help end harassment by bill collectors.

For military bill payers, it should mean the end of efforts by collectors to contact commanding officers and the embarrassment that goes with it. Such communications now are violations of the law and could subject the collector to law suits for damages or fines or to administrative actions by the Federal Trade Commission. If you think you are being harassed, contact your legal assistance officer to see if this new law may help you. *(MCNews)*.

Arthur E. Beaumont
1890 - 1978

First American Artist in Antarctica

Arthur Beaumont was the first to admit that he wasn't shy. Still, he admired a good squelch.

The telephone was nearly ringing itself off the hook one morning in his Los Angeles home as he was deep in the midst of a watercolor. Rule one in watercolors is that even a moment's interruption can undo hours of preparation.

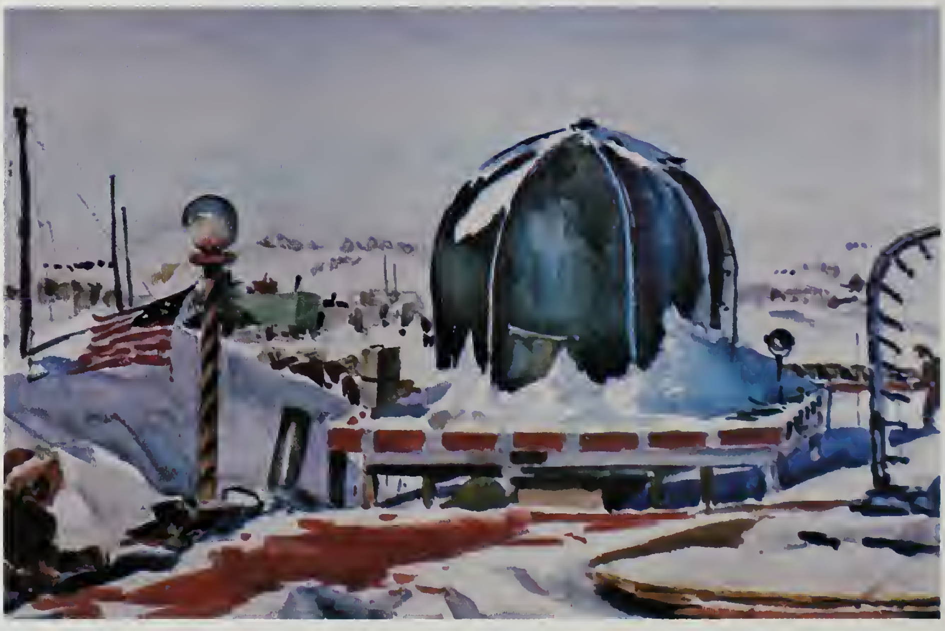
He tried to ignore it. He asked himself, why should he answer it and spoil a masterpiece? It was probably a telephone salesman, anyway. Whoever it was, he was certainly persistent. Still, he thought, it just might be that long-awaited million-dollar commission. Angrily he grabbed the receiver.

"Beaumont here," he growled.

A tiny voice asked, "Who?"

He recognized the voice of his 6-year-old granddaughter and answered, "This is the world's greatest artist and you've called at just the wrong moment."

"Oh excuse me," she said, "I must have the wrong number."



Arthur Beaumont, the Navy's first combat artist, died this past January in his Laguna Hills home in California at the age of 87. A naturalized citizen—native of Norwich, England—he began his formal art study in 1912 at the University of California School of Art in San Francisco. Later he studied at the Mark Hopkins School of Art in Berkeley and the Los Angeles School of Art and Design.

In 1925 he returned to England and studied art in London and Paris.

At first, he loved to paint horses and built a reputation as a cowboy painter. But his love of the sea turned him in that direction—he became one of America's foremost marine watercolor painters.

In 1932 he accepted a Naval Reserve commission as an artist. In that capacity he traveled the globe covering the Navy's story on paper and canvas.

His work with the Navy included combat art during World War II, Korea and Vietnam, and coverage of the Bikini atom bomb tests, the Northwest Passage endeavor, and the Navy's role in the Antarctic. He became best known for his Antarctic work which began during the International Geophysical Year (1957-58) and continued through 1961.

Among his many admirers is retired Rear Admiral David M. Tyree who, as Commander Task Force 43, enticed Beaumont to go to the Antarctic with Operation Deep Freeze.

When the admiral first arrived in the Antarctic in 1958, he said he was ". . . astounded at the beautiful, vivid, changing colors in the Antarctic. Color photographs really didn't do it justice." The admiral wanted ". . . to get Beau down there because his paintings always brought out the colors so well."

Beaumont actually shared the honor of being the first artist on the ice with another—Dr. E. H. Wilson of Scott's fatal, early 20th century expedition. The doctor recorded much of Scott's efforts in sketches and some watercolors. But, as Admiral Tyree explained, Wilson's ". . . primary job, however, was as surgeon in Scott's early expeditions and zoologist and leader of the scientific staff in the 1910 expedition."

To Arthur Beaumont, therefore, goes the title of first American artist on the Antarctic continent.

Beaumont had a problem on the ice. One can hardly paint watercolors outdoors in −20° F. weather without having the water freeze. His answer was to mix the colors with alcohol. Tech-

nically, his works became alcohol colors more so than watercolors.

Another problem—painting while wearing mittens or gloves produces sloppy work. He left two fingers of his painting hand bare and held a handwarmer along with his brush.

There he sat on a brightly colored camping stool, all alone in the vast wasteland of the South Pole or on McMurdo Sound's ice, painting as fast as he could with one ear cocked for the sound of the chopper coming to return him to the local station. Beaumont confessed that he didn't dare stray from the spot where the helo crew deposited him when he went to the field.

He accomplished some 20 paintings out in the open, including coverage of the icebreakers as the expedition explored the wilds of the Bellingshausen Trench area leading to the Palmer Peninsula.

Admiral Tyree said that he knew of no artist who could match Beaumont's record.

"He preferred to work in watercolors because it was a challenge," the admiral said. "He had to do it right the first time in watercolors. On the other hand, in oils, a mistake could be made and easily corrected."

Beaumont held the Navy's Citation for Meritorious Service. His paintings of Navy ships and Navy people at work can be seen in the National Geographic Museum of Art, the Combat Art Section of the Washington Navy Yard Museum, and at the Pentagon, the Naval Academy, and in the Los Angeles area.

Proving that he wasn't shy, Beaumont commented on a 1976 showing of his works at the Laguna Beach Museum of Art: "I think it's magnificent! It is a very appropriate means of expressing my enthusiasm for what I've been doing with the Navy all these years. It is also a fitting conclusion of the Museum's bicentennial year."

Only the "Artist of the Navy" could say that in his own lifetime.—JFC

Beaumont paints an icebreaker during Operation Deep Freeze while sitting on a makeshift stool on the bay ice.

Bearings

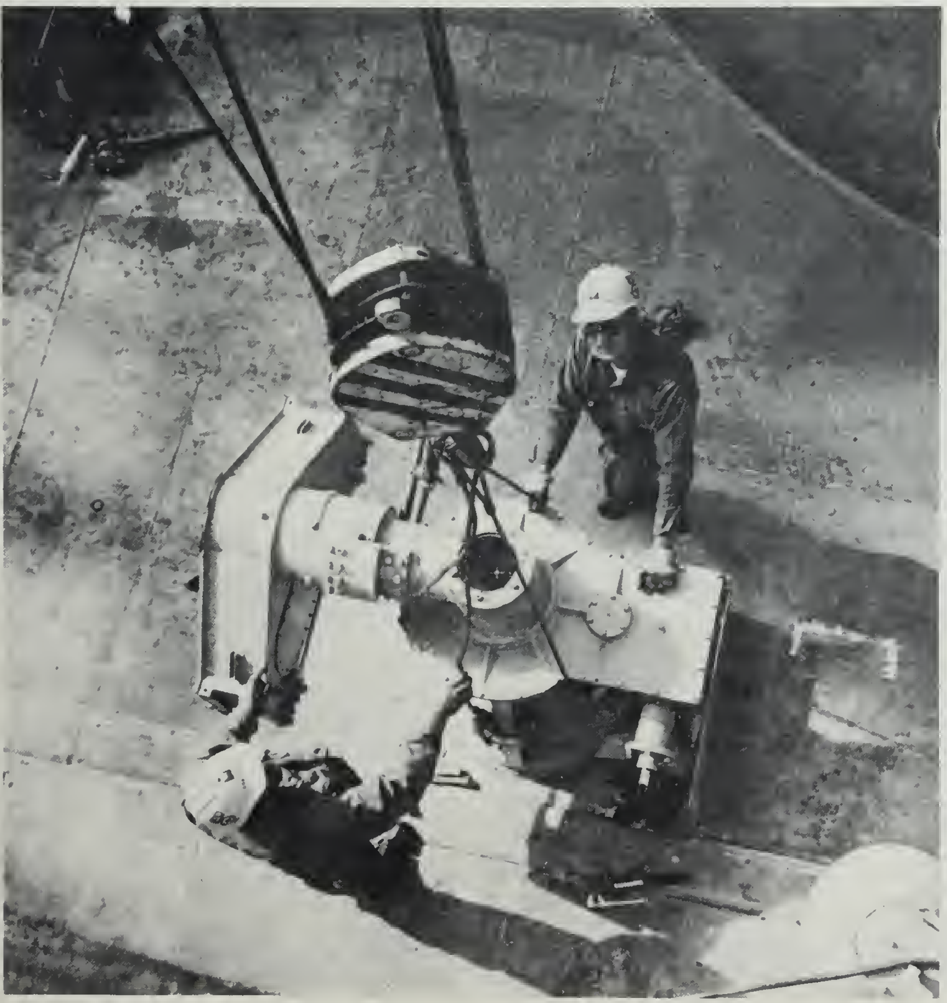
'Decade of Dedication'

December was a month of sparkle and celebration for the Development and Training Center, Fleet Maintenance Assistance Group, Pacific (DATC FMAG).

The slogan, "DATC FMAG, A Decade of Dedication, 1967–1977," was sported on the rear bumpers of many cars at the San Diego Naval Station. A huge sign posted above the center's administration building proclaimed its message to hundreds of passing motorists.

In 10 years the center has undergone at least three major changes. The command was originally established to provide shore billets for deprived fleet ratings while simultaneously improving their professional background through special schools. In 1972, the Chief of Naval Operations expanded the command's charter to include non-engineering ratings—the fleet Maintenance Assistance Group concept was born.

In July 1975, the charter was again altered to meet the growing needs of the modern fleet. In addition to enhancing the professional capabilities of certain fleet ratings, the command began operating as a shore intermediate maintenance activity, providing timely repairs to ships of the fleet.



What the shore intermediate maintenance activity concept means to the Navy is obvious: timely, quality repairs to the ships of the fleet. Through training, as well, expert repairmen are returned to the fleet for their sea tours. The Navy's retention program is strongly supported by giving engineering ratings the opportunity to have meaningful shore duty.

"In theory," Commander Joseph D. Fenick, DATC's executive officer said, "DATC FMAGPAC is trying to put itself out of business by returning to the fleet sailors who are effectively trained, experienced and motivated. Most of the sailors received initially by our command are operationally oriented but possess little or no maintenance background. DATC FMAG trains them."

"The DATC FMAG concept," concludes Captain Frank C. Collins Jr., commanding officer, "is one of the most uniquely valuable concepts in the areas of maintenance, retention and morale ever conceived by the Navy. It's the best of both worlds for the engineer, and there is a maximum payback to the Navy for every day a man spends at DATC FMAGPAC."

—Story by JO2 Ken Baesler
—Photo by MM2 J. E. Mahohey

Copying the Original

In 490 B.C., Pheidippides, a Greek soldier, ran more than 26 miles from the plains of the Marathon battlefield to Athens and announced the Athenian victory over the Persians. Last October, two Navymen, Captain Eugene Finke and Petty Officer 2nd Class Kevin Setnes, were among 1,800 runners from all over the world to duplicate Pheidippides' run as competitors in the 9th Classic Greek Marathon Race for Amateurs.

Captain Finke, of the staff of the Commander-in-Chief, U.S. Naval Forces Europe, received a gold medal for finishing first in his class (48-59 age group) with a time of 4:24. Setnes, of the Naval Communications Area Master Station Mediterranean, took second place and a silver medal in his class with a time of 2:58:47.

The event, held each October to commemorate the run by Pheidippides, follows the original route which begins on the plains of Marathon, heads into a 10-mile hilly stretch, and ends in the Athens Olympic Stadium—a total distance of 26 miles, 385 yards.

Down East Affair

It doesn't happen often that a ship visits the hometown of the person for whom she is named, but USS *Elliot* (DD 967) did just that when she dropped anchor outside the breakwater at Rockland, Maine. Named for Lieutenant Commander Arthur (Jack) Elliot, a Vietnam War hero killed in combat, the ship was greeted by about 40 pleasure craft carrying relatives, friends and neighbors of the Elliots. It was the affair's start.

On the day of arrival, the crew was treated to an all-you-can-eat dinner of Maine lobster, clams and fresh corn, compliments of LCDR Elliot's parents, Mr. and Mrs. Albert B. Elliot. In turn, *Elliot's* commanding officer, Commander D. L. Gurke, was honored at a joint luncheon hosted by local civic organizations. Rear Admiral Roy F. Hoffmann, Commandant, Sixth Naval District, spoke at that affair.

Highlighting the ship's weekend visit was a daylight guest cruise on board the recently commissioned *Spruance*-class destroyer for about 650 local citizens. Rockland High School Band treated visitors and crew to an underway concert on the aft or missile deck as *Elliot* cruised calm waters off New England.

More than 2,000 Maine residents visited *Elliot* at anchor and crewmembers were received warmly ashore during "Elliot Day" at a local county fair. *Elliot's* lights, visible for miles, became an additional attraction for the weekend.

During a brief Sunday morning ceremony, *Elliot's* captain, accompanied by an honor escort of ship's company, laid a wreath at the grave of the ship's namesake in nearby Thomaston.

Elliot weighed anchor early on Monday morning, bound for the Panama Canal Zone and, eventually, her homeport in San Diego. While it is unlikely that *Elliot* will return to Rockland, it is certain that her one visit will be long remembered.

Pickup and Delivery

Two California fishermen were rescued by the guided missile cruiser USS *William H. Standley* (CG 32) when their small boat's motor stalled and they began drifting out to sea.

Dean Jacobs and Scott Brough had been adrift off Santa Catalina Island for four hours when *Standley's* lookout, Seaman Mike Leiby, reported the boat in distress. The two fishermen were standing in the boat waving a shirt tied to a pole.

Standley maneuvered near and lowered one of her boats. After bringing the small craft alongside, two members of the ship's engineering department attempted to restart the motor. When it became clear that the problem would take some work, the decision was made to hoist the boat on board and take it near shore where they would be met by members of the Los Angeles County Department of Beaches.

"I thought *Standley* would only radio for help, which would have meant not being rescued until after dark, and we had no lights aboard," said Brough.

Jacob added, "We never expected to get this much help from the Navy."

Standley is a recent addition to the Pacific Fleet, having previously been homeported in Charleston, S. C. She is named in honor of Admiral William H. Standley, a former Chief of Naval Operations (1933–37).

Learning by Doing

Lieutenant Commander Pamela A. Kaires recently became the Navy's first woman doctor to dive to 300 feet using the 290-pound Mark V mixed gas (helium/oxygen) diving outfit.

Doctor Kaires, now studying submarine medicine at New London, Conn., previously completed an eight-week course at the Navy School of Diving and Salvage in Washington, D.C. She undertook the diving course to get a firmer understanding of the medical and practical aspects of diving.

They Make House Calls

The five TV repairmen aboard the aircraft carrier USS *Enterprise* (CVN 65) are really no different from their civilian counterparts, but they do have one thing that others can only dream about: a monopoly on the business.

"We even make house calls," says Interior Communications Electrician 2nd Class Vince Dimartino. "As soon as we get a call from a division that a set is broken, we take our tool kit and check it out. If we can't trace the problem immediately, we take the set to the shop. Unless we have higher priorities, the set is usually fixed within a couple of days."

Enterprise's 200 TV sets were purchased in 1974 when the ship converted to a new entertainment system. They are all the same model, and this speeds up repair work since the repairmen only have to know one wiring system.

"We spend about $2,000 a year on parts," explains Electronics Technician (Radar) 2nd Class Joe Kayser. "Most of the parts we use are 50- and 75-cent items, like capacitors and diodes. Occasionally, more expensive intermediate frequency modules have had to be replaced."

Besides TV repair, the five electricians are responsible for over 500 types of test equipment used on *Enterprise*.

There's no doubt that a properly working TV set is an important morale factor. The TV studio is inundated with phone calls when a set goes on the blink. They relay the message to TV repair, and then the crew can sit back and rest assured that a repairman is on the way.—*JO1 Len Churilla*

Bearings

Report Praises Schools

". . . as fine as any we've seen in America." ". . . the rapport between teachers and their students is enviable." Such were the comments directed to the European Department of Defense Dependent Schools after a recent study by a four-member accreditation team from the North Central Association of Colleges and Secondary Schools.

The team spent a month visiting 12 high schools and one junior high in Italy, Spain and Germany and praised the diversified instructional program and relationship between teachers and students. They observed that the pupil-teacher ratios were much more favorable than in most high schools and that students seemed to have more time for academic pursuits ". . . perhaps because they don't have as much access to cars or to unlimited television viewing."

"Probably your greatest resource," the report stated, "is your students. In spite of a fairly rapid turnover rate, your students have as much spirit, as much sense of tradition as students do in the Midwest. The intimacy of your smaller schools especially allows for most students to get involved in extracurricular programs—sports, drama, newspapers, clubs and other activities—a very, very healthy sign."

The accreditation team expressed some concern that many teachers were not taking full advantage of the opportunity to learn from a host, foreign environment. Their biggest criticisms centered on internal management practices. But for the most part, the NCA report was one of praise.

Winning Touch

Seven of the Navy's best touch football teams, some coming from as far away as Europe and the Caribbean, clashed recently at the Meridian Naval Air Station in Mississippi, in the annual All-Navy East Coast Touch Football Championships.

A tough, determined Great Lakes team won the championship with a final score of 40-24 over runner-up Norfolk. According to Great Lakes Coach Virgil Lewis, flexibility and teamwork clinched the championship for his team.

"We are totally flexible," Lewis said. "We are a good ball club and we pick up what our opponents are doing and are able to adapt. That's why we won."

In addition to Great Lakes and Norfolk, teams from Meridian, Brunswick, Washington (D.C.) and composite teams from commands in the Caribbean and Europe participated.

Great Lakes began their fight for the championship in weather that ranged from warm Indian summer days to cold rain and thunderstorms. In the first game they trounced Washington 41-0. Next, they sneaked by Meridian 28-26, followed by a 24-20 win over the team from Europe.

The final game between Great Lakes and Norfolk was played on a soccer field because of damage done to the original football field by periodic rain and three weeks of competitive football.

Although the Norfolk team had shown throughout the tournament that they are a come-from-behind team, the 18-point lead that Great Lakes mounted in the first half was too much for Norfolk to overcome. Great Lakes went home victorious—already planning for next year's championship.

Obit of the Blue Tail

The legend of the "Blue Tail Fly" was born in the Korean War, while Attack Squadron 153 (then VF 831) was helping set a record for the most combat sorties flown in a single day.

Well, VA 153 is no more—it recently was decommissioned. But the story surrounding the birth of those "Blue Tail Flies" will undoubtedly go down as one more legend that the Navy will long remember.

During the Korean War the squadron was flying F9-F5 *Panthers* off USS

Princeton. Some of the planes were painted blue while—for no explainable reason—others were painted silver.

During one combat mission the tail section of a silver jet and the nose section of a blue jet were badly damaged by enemy fire. The planes, though battered, made it safely back to *Princeton* where crewmen began grafting the remnants of the two planes. Men worked day and night until one plane—possessed of a silver body and blue tail—was born of the cannibalized parts from the shot up planes.

Mechanics who switched the tails, electricians who did the wiring and metalsmiths who accomplished the rerigging all began singing the "Blue Tail Fly"—the birth of a legend.

This single "Blue Tail" airplane returned to combat while men onboard *Princeton* composed a verse about her unusual metamorphosis.

Indeed, that plane's fame soon became so widespread that no one bothered to use a code for it during combat missions; it was the "Blue Tail Fly."

The combat success of both plane and squadron during that deployment pointed up to the men of VA 153 that they had a good thing going. *Voila*! Soon all planes sported blue tails and continued to do so up until recently when the squadron ended its illustrious career during decommissioning ceremonies at Naval Air Station Lemoore, Calif.

So it's good-bye to a squadron that fought in Korea, made eight combat deployments to Vietnam and became the first carrier-based squadron to win the Arleigh Burke Award, given to the combat unit which achieves the greatest improvement in battle efficiency during any year.

It's good-bye to a squadron whose symbol—the blue tail—was born of combat ingenuity and resourcefulness.

It's good-bye, finally, to a squadron that was the only Light Attack Squadron to accomplish the remarkable achievement of winning three consecutive Battle "Es." Lucky for U.S. Navy aviation that her accomplishments will live on.

Hitching a Ride

At dawn on Nov. 3 operating in the Indian Ocean southwest of India, units of Task Group 77.4 spotted a small fishing vessel in distress. Guided missile destroyer USS *Parsons* (DDG 33), commanded by Commander W. T. Dziedzic, went to investigate.

Parsons found a 30-foot fishing boat becalmed and drifting away from the fishermen's Suvadiva Atoll home in the Maldive Islands.

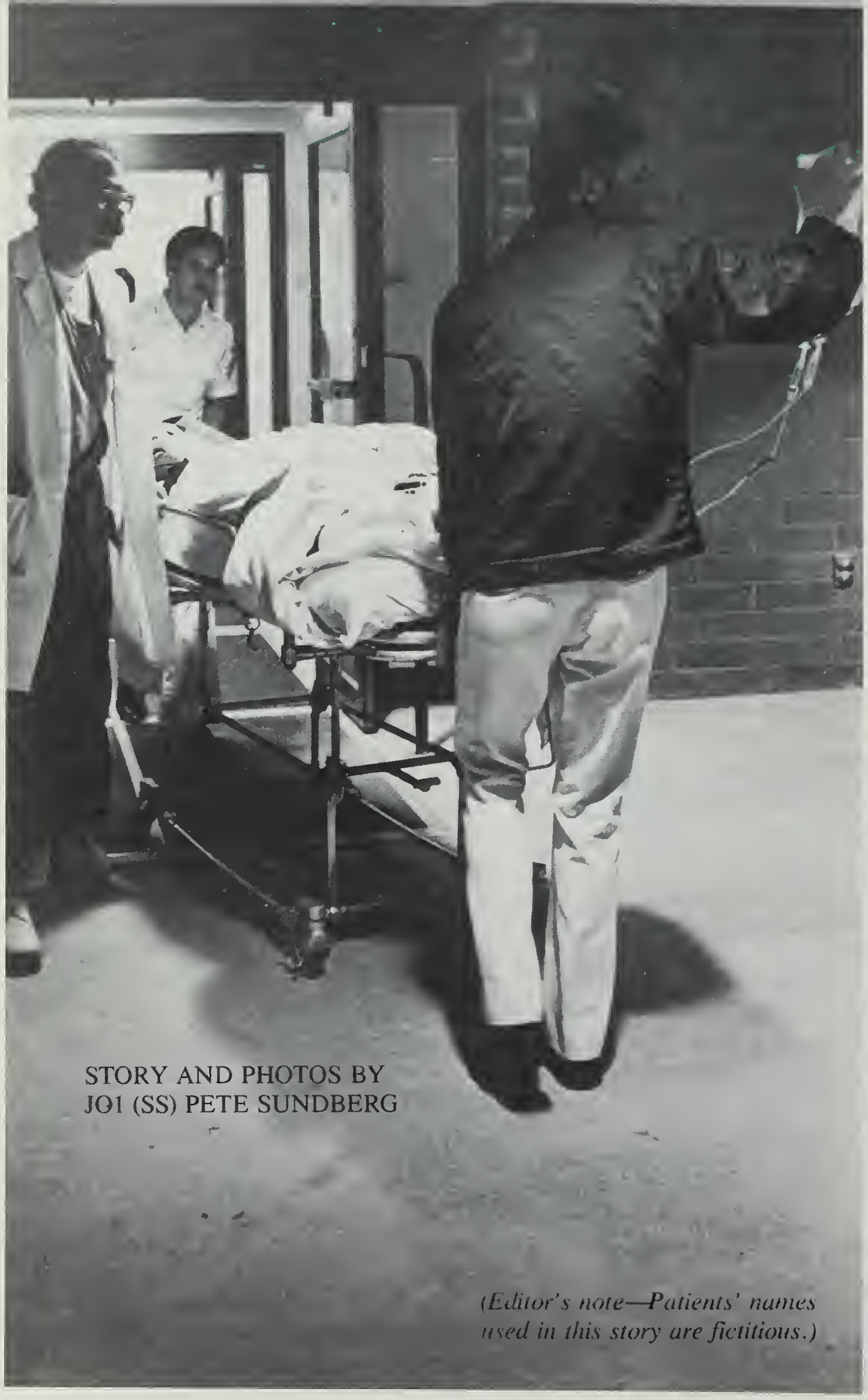
Through sign language, Dziedzic found that the fishermen were using a 1925 British chart as their sole navigational aid. They believed themselves to be east of their island home, but were actually 60 miles west of it.

Under the direction of Task Group Commander Rear Admiral P. A. Peck, *Parsons* took the fishing boat in tow. The fishermen were moved aboard the ship, where they received clean clothes and their first good meal in days. One fisherman remained on their boat to help three *Parsons'* sailors ensure boat safety during the tow.

The rescue coincided with *Parsons'* 10th birthday as a DDG. In 1967, she had been recommissioned following conversion at the Long Beach Naval Shipyard.

Seven hours after the rescue, *Parsons* neared Suvadiva Atoll. Their original clothes freshly laundered, the Maldivians returned to their boat and home. It concluded a unique birthday celebration in the fleet. ⚓

Quiet Professionalism



STORY AND PHOTOS BY
JO1 (SS) PETE SUNDBERG

(Editor's note—Patients' names used in this story are fictitious.)

THURSDAY

Mrs. Ross moans and tries to move as she is wheeled into the emergency room. Charge nurse Lieutenant (j.g.) Kathy Geyer begins to take the woman's vital signs. "Don't move, hon. You've been in an accident and you're in the hospital," Miss Geyer

Below: Lt. j.g. Kathy Geyer (far right) directs ambulance crew bringing patient into the emergency room.

in a Sea of Haste

Portsmouth Emergency Room

gently explains. "We're trying to help you."

For the ER staff, the situation is routine. For Mrs. Ross, it's a nightmare. She has a deep gash in her forehead, a crushed pelvis, broken bones in both arms and legs—and she's seven months pregnant.

Lieutenant Richard Armstrong, a surgical resident, takes over when the patient arrives in the operating room. He quickly examines Mrs. Ross and orders an intravenous (I.V.) and a battery of X-rays. Specialists from the gynecology, orthopedic and neurology wards are ordered to report to the operating room to assist.

Everyone in the OR is busy—as the X-ray technician finishes the camera work, blood is drawn, oxygen is administered and vital signs are taken again. Conversation is terse.

Dr. Armstrong consults with an orthopedist. Since any I.V.s that are put into the patient's arms or legs will have to be removed later in order to repair the damaged limbs, an I.V. will have to be inserted into a neck vein.

"Mrs. Ross, we're going to have to stick some needles into your neck," explains Dr. Armstrong. "Please try to remain as still as possible."

The area around the vein is anesthetized. A long hollow needle is inserted into the vein and then the I.V. line is pushed through the needle and into the vein. The needle is then removed and the I.V. is sewn to the woman's neck—seemingly brutal, but a precautionary procedure designed to keep it securely in place.

It will be hours before Mrs. Ross is stable enough to be moved—then it'll be up to the specialists. Meanwhile, the emergency room desk people are busy; patients occupy five of the seven examination areas and the waiting room is slowly filling up.

More than 100 people a day, with every conceivable ailment, check into the Naval Regional Medical Center (NRMC) emergency room at Portsmouth, Va. They come with broken bones, skinned knees, seizures, colds, and some with just "pains" in every part of the anatomy. There are the humorous, the minor and the serious cases. Some die; but many more, such as Mrs. Ross, are treated successfully.

The first medical person a patient sees is a nurse or corpsman who asks what the complaint is and takes pulse, temperature and blood pressure readings. People with obvious problems such as chest pains, breathing difficulties or bleeding are seen first. Patients with less dangerous conditions must wait their turn to see a doctor.

Between 0800 and 2100, minor cases are referred to the Medical Acute Care Clinic (MACC). The MACC, staffed by doctors and clinical assistants, treats the colds, coughs, headaches and other, sometimes mysterious, physical discomforts. The clinical assistants, a corpsman specialty, are the only Portsmouth corpsmen authorized to examine, diagnose and write prescriptions for patients (with a doctor's final approval). This authority greatly reduces the number of patients who would otherwise have to be seen in the emergency room.

The efficiency of the emergency room is superb, but to many patients its reputation for treating a cold or headache really fast is considered questionable; but, then, they're the ones with the discomforts.

After the MACC closes, patients with minor problems, however uncomfortable they may be, sometimes wait a period of time to be examined; not because the corps personnel are indifferent to their needs, but simply because the emergency room staff sees emergencies first.

Lieutenant M. L. Davis, the doctor in charge of the emergency room, admits that it's possible for a potentially serious case to be missed the first time around. Dr. Davis explains that it's not because of lack of competence on the part of the medical staff. At the heart of it all is overuse by some patients, with minor ailments, of the emergency room's primary function—administering care to acute cases.

Action in the form of a Navy-wide patient education program is currently being taken to correct misuse of the emergency room and other medical facilities. The program is designed to teach active duty personnel, dependents and retirees what hospitals and clinics they should use and when. Above all, it emphasizes that people with minor illnesses should make use of regular sick call hours at the outpatient clinic and not overload the emergency room personnel.

Top: Corpsmen minister to a drug overdose victim. At right: Drs. Wayne Hess and David Randolph discuss accident victim's X-rays.

FRIDAY

A man sits drinking and thinks of his court-martial and pending discharge. He also ponders his future—one that looks more hopeless with each drink. He comes to a decision, goes to the medicine cabinet and takes out a bottle of pills. . . .

. . . the patient is jolted out of unconsciousness by a loud voice.

"Tom, have you ever had your stomach pumped?" asks Hospitalman John Fellows.

"No," he mumbles, as he watches three corpsmen prepare for the job.

"You're not going to like it, but it's not as painful as it is uncomfortable," explains Fellows. "We're going to have to put this tube through your mouth. . . ."

The ordeal begins. The near suicide victim begins to rally, he wants to live. Day-by-day experience gained by hospital corpsmen allows a professional staff to be capable of handling many emergencies such as this one without supervision.

NEW YEAR'S EVE

The ER, with its doctors, nurses and specially-trained corpsmen are ready for anything this New Year's Eve.

The man walks into the ER seeking treatment for the blue splotches on his neck. He is immediately ushered into an examination room to be seen by a doctor. The tentative diagnosis is cyanosis, a bluish or purplish discoloration of the skin or mucous membranes caused by a deficiency of oxygen in the blood and often present in people with congenital heart defects.

Minutes later, the man comes out of the exam room—his once blue neck now overshadowed by a red face. The doctor laughingly explains, "It wasn't cyanosis, but, 'pseudo cyanosis,' a rather rare affliction caused by putting on a new, but inferior, blue shirt."

Meanwhile, an ambulance run has to be made. Lieutenant David Randolph is explaining the case to Lieutenant Wayne Hess, the doctor who will accompany the ambulance.

A chief petty officer had been involved in a motorcycle accident earlier in the day and was now in the emergency room at an outlying hospital. The hospital had completed the initial lab studies. There were possible internal injuries along with a fractured femur and a large hemotoma on his right leg.

"We really can't afford to send a doctor out on a night like this," Dr. Randolph says. "We could be in a hurting position if we get a bad crunch out here on the highway.

"But when you've got an outlying hospital that wants to transport somebody, it may mean they don't feel their facilities are adequate to support the patient," said Dr. Randolph.

The ambulance leaves NRMC at 2130 and arrives at the civilian hospital 15 minutes later. Ninety minutes pass before Dr. Hess is satisfied the patient is stable enough to be transported.

The ride back isn't the flashing lights and wailing siren type of drama portrayed on TV, but it still is a knuckle-whitening experience. The ambulance driver anticipates how other drivers

Dr. Richard Armstrong, assisted by two specialists, anesthetizes patient in preparation for insertion of I.V.

HN John Fellows and Dr. David Randolph monitor a system which measures spinal fluid pressure.

will react when they see his rig appear in their rearview mirror; he expertly picks his way through the holiday revelers and delivers the patient safely to Portsmouth's emergency room.

Anything can happen and often does, but the ER staff doesn't schedule extra people just because it's New Year's Eve nor does the staff become nervous or look for corners in which to hide. Since most of the corpsmen on duty are qualified Emergency Medical Technicians (EMTs), the ER team feels confident that they can handle whatever might occur.

The EMT training, which is voluntary and available to any person interested in patient care, spans 128 hours of instruction in everything from patient handling to driving an ambulance and the application of its related equipment. Although EMTs are qualified to do jobs similar to those performed by paramedics, they cannot independently administer medicines or act as an extension of a doctor's skills, even if a physician is directing them via radio or telephone.

However, Cardiac Technicians, the next step for EMTs, are empowered with this responsibility.

When working away from the hospital, Cardiac Technicians (CTs) can dispense medicines to patients without having a doctor present. In addition to the EMT training, another 172 hours of instruction is required before CT certification. Until recently, NRMC had only three certified CTs, but with the installation of a Coronary Observation Radio (COR) monitoring system, the hospital found it could institute its own CT training course in order to use the system effectively. With a range of 45 miles, the system is considered a boon to the area.

"With a CT in the ambulance sending us EKG strips," says Dr. Davis, "and in constant communication with a doctor in the emergency room, we can get a coronary patient here in good shape."

Although only one ambulance is now equipped with the COR system, five more units have been ordered. Once the system has been expanded and enough CTs trained, the emergency room doctors will be relieved of the responsibility of having to accompany patients to the hospital.

A voice crackles over the hospital emergency phone.

"NRMC Portsmouth, this is Riverside Hospital, over."

Geyser, Fellows and Randolph hurry to the phone—"NRMC over."

"Happy New Year, Portsmouth!" answers Riverside.

Relief flows into everyone's face when they realize they had forgotten what night it is.

"Hey, we've got an M.I. (heart attack) out here," someone yells.

The three return quickly to what they do best.⚓

MCPON

"Questions and Answers"

MCPON Robert J. Walker

An important part of my job as Master Chief Petty Officer of the Navy is making official visits to Navy commands throughout the world to meet with enlisted men and women and describe the present state of the Navy as I see it. I try to do my best to answer their questions concerning any facet of Navy life.

The following are questions of a general nature I answered during a recent trip to commands in the southeast portion of the country:

Q. *Why do the selection boards always place such emphasis on sea duty?*

A. In a nutshell, sea duty is important simply because this is the *naval* service. By placing emphasis on sea duty in the selection process for E-7/8/9, the Chief of Naval Personnel encourages competition for this type of duty which is vital to the accomplishment of our basic mission. Additionally, sea duty rounds out an individual's overall job experience.

However, simply having had sea duty does not ensure selection over someone who lacks it. This recognizes the fact that not all ratings have a good opportunity to receive sea duty, especially at the senior levels. The letter from the Chief of Naval Personnel which convenes the selection of boards addresses this matter.

Q. *Why did the TIS/TIR requirements change?*

A. Recent and future time-in-service (TIS) and time-in-rate (TIR) changes are the result of compliance with Office of the Secretary of Defense (OSD) directives. In an effort to improve military manpower management, OSD has established minimum normal progression flow points, that is, the minimum desired TIS point at which a given promotion may occur. TIR changes are an internal Navy management tool to accommodate TIS changes and to manage the enlisted paygrade structure.

Q. *Are the changes really necessary in the housing regulations with regard to utilities?*

A. In order to help conserve energy, Congress has approved a plan to install and test utility meters in military family housing. The test will begin this year and take approximately two years. Roughly 12,000 family housing units will be tested at 10 military activities. Throughout the test program, mock billing will be practiced and the occupant will *not* be required to pay for any excess usage. Congress will review the test results, and, if they agree upon the program, they will determine a "fair consumption rate."

Because families in military family housing do not pay utilities, they are often not aware of how much energy they use. Military families will continue to receive free utilities if the fair consumption rates become effective, but families who exceed those rates would pay for the extra energy used.

Q. *Will we see more women in the Navy in the future?*

A. Yes. We currently have approximately 19,000 enlisted women and 4,000 female officers on active duty. Our plans already call for an increase in the enlisted ranks to about 30,000 and an increase in female officers to about 4,600 by 1983. If the amendment to Title 10, USC, Section 6015 passes, the number of women will rise to 40,000.

Q. *Is Title 10, USC, being modified to permit women to serve aboard combatant vessels?*

A. No. Approval of the proposed amendment to Title 10, USC, Section 6015, would authorize utilization of women aboard ships classified as auxiliaries or service craft which are designed for support functions and are not required by contingency plans to participate in combat operations.

Q. *Is the Navy really serious about the weight control program?*

A. Yes, the Navy is very serious about the weight control program. BUPERSINST 6110.2B implemented a more stringent program requiring commanding officers, with the assistance of the medical officer, to identify and classify members within their commands who were overweight and to place them on a weight reduction program for a period of six months.

If the member does not demonstrate adherence to the program, administrative discharge action may be taken. However, if a member shows significant progress, yet requires additional time to meet the weight standards, the Chief of Naval Personnel will decide favorably on extension requests. Those members discharged by reason of obesity may reenlist at a later date provided the reenlistment weight standards are met. ⚓

A look at Diego Garcia

BY JO3 P. M. CALLAGHAN

It is not yet dawn as Seabees eat breakfast in Diego Garcia's dining facility. Over coffee and fried eggs, crews discuss the coming day's work. Then, in fatigues and hardhats, the members of Naval Mobile Construction Battalion 62 greet another torrid day on the island which sits just below the equator in the Indian Ocean.

Day after day the Seabees work to transform the coral reef atoll into an island naval facility. Theirs is no eight-hour day—work continues around the clock.

During the night, trucks haul cement from an area near the lagoon to a pair of concrete plants operated by Seabees. These plants produce all the concrete used in Diego Garcia's construction projects.

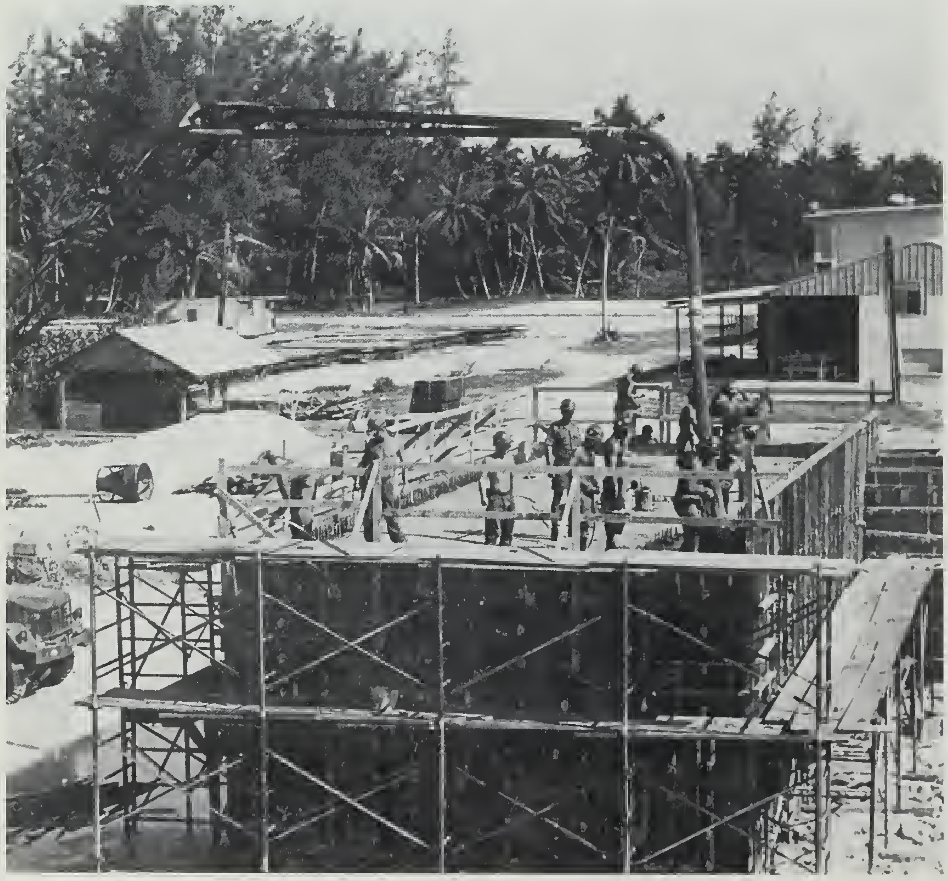
"With the tremendous workload on Diego Garcia and problems we have in maintaining $20 million worth of equipment," said Lieutenant Ray Pylant, Alfa company commander, "the challenge is great and demands the best from each of us."

Seabees are currently lengthening the island's runway to make it safer and capable of accommodating a wide range of transiting aircraft. A gateway to the outside world, the runway is priceless when measured in terms of morale.

A Military Airlift Command "Starlifter" C-141 flight arrives every Wednesday and Saturday bringing replacement personnel, high priority cargo and, of course, mail. Early the next day, the *Starlifter* departs carrying outgoing mail, personnel going on leave and others being transferred.

The arrival and departure of the C-141 is a welcome relief, if only for minutes, for the men working on the new runway. Even when the weather station's thermometer reads a mere 90 degrees, Seabees on the off-white coral sands, which will one day be a runway, suffer in the sun's direct and reflected heat. At times, the air seems unbreathable.

Incoming flights always receive attention, but the major event on this horseshoe-shaped island is the day a ship steams into the lagoon carrying supplies. Normal working schedules are altered as Seabees, Naval Communications Station personnel, and



Seabees lay a foundation for a two-story barracks on Diego Garcia. (Photo by PH3 Steve Frass.)

Seabees place concrete at the site of Diego Garcia's future swimming pool. The concrete is made of cement and crushed coral. (Photo by PH1 Robert Vaughn.)

specialists from Cargo Handling Battalion One board "mike" boats and barges to offload cargo from the hold. This chore goes on for several days.

Not even when Diego Garcia was one of the largest producers of coconut oil in the Indian Ocean could it boast such a constant stir of activity as when a supply ship arrives. When the ship leaves, however, she's gone—not even a wake remains. But the plantations that housed the coconut barons are still there and ready to be seen and explored.

Discovered in 1498 by the Portuguese, Diego Garcia passed through French hands before it became a British possession in 1810. During World War II, it served as a refueling and minor repair station for Allied ships. Today, two six-inch gun emplacements still guard the lagoon—curiosity pieces gathering dust.

In 1971, the first Seabees arrived and lived in tents. Gradually, conditions improved. The station is no longer the primitive site it once was; now the 1,400 men who call Diego Garcia "home" eat in a new dining facility, work out in a gymnasium, relax in the enlisted club and will soon sleep in a new barracks. Not that facilities are necessary to enjoy some of the finer things about the island—there is always excellent fishing, sailing, swimming and softball.

General living conditions are satisfactory (after you get used to them), but certainly don't equal what one would enjoy in the states or at other overseas deployment sites. Quartering is divided into two distinct types: air-conditioned portahuts sleeping four to six men each, and open-air Southeast Asian seahuts sleeping 12 men each.

At the end of each day, Seabees return to camp. While they crowd into the chow hall and plan the night's activities, other men are waking. They are preparing to begin their "day's work" on Diego Garcia which will end at dawn.

A look at Diego Garcia

The U.S. Navy Support Facility located at Diego Garcia—one of five major islands in the Chagos Archipelago—was established as a result of an agreement between the U.S. and U.K. in 1966. Transforming the coral atoll into a naval facility is a large, permanent, peacetime construction project being undertaken by Navy construction forces.

PHOTOS BY JO1 KIRBY HARRISON

Top: When the nightly rains continue into the next day, the waters in many parts of the island rise to boot-top level.

Below: Benbinido Francisco is hoisted up to what will be the roof of one of the new fuel tanks; it's being constructed by Seabees and civilian construction workers.

Above: A weathered sailboat lies beached in the Diego Garcia lagoon.

Below: A Seabee makes his way up the ladder which winds around the side of a large fuel tank.

To all Sailors wherever ye may be:

When you're born, you're issued a birth certificate. When—as the French say—you swallow your birth certificate, your passing is marked by a death certificate.

Between these two official documents noting the coming and going of man, most people collect a few certificates observing how they spent some of their time in life—diplomas, sheepskins, a testimonial or two certifying some sort of service or achievement. Therein lie the achievements of most people.

Not so with Navy people. By the time one retires, a den's bulkhead can be covered with citations, plaques, photos and, oh yes, certificates. There for all to see are the accomplishments and achievements denoting one's service upon the briny deep—from the Order of the Blue Nose to the Order of the Big Ditch.

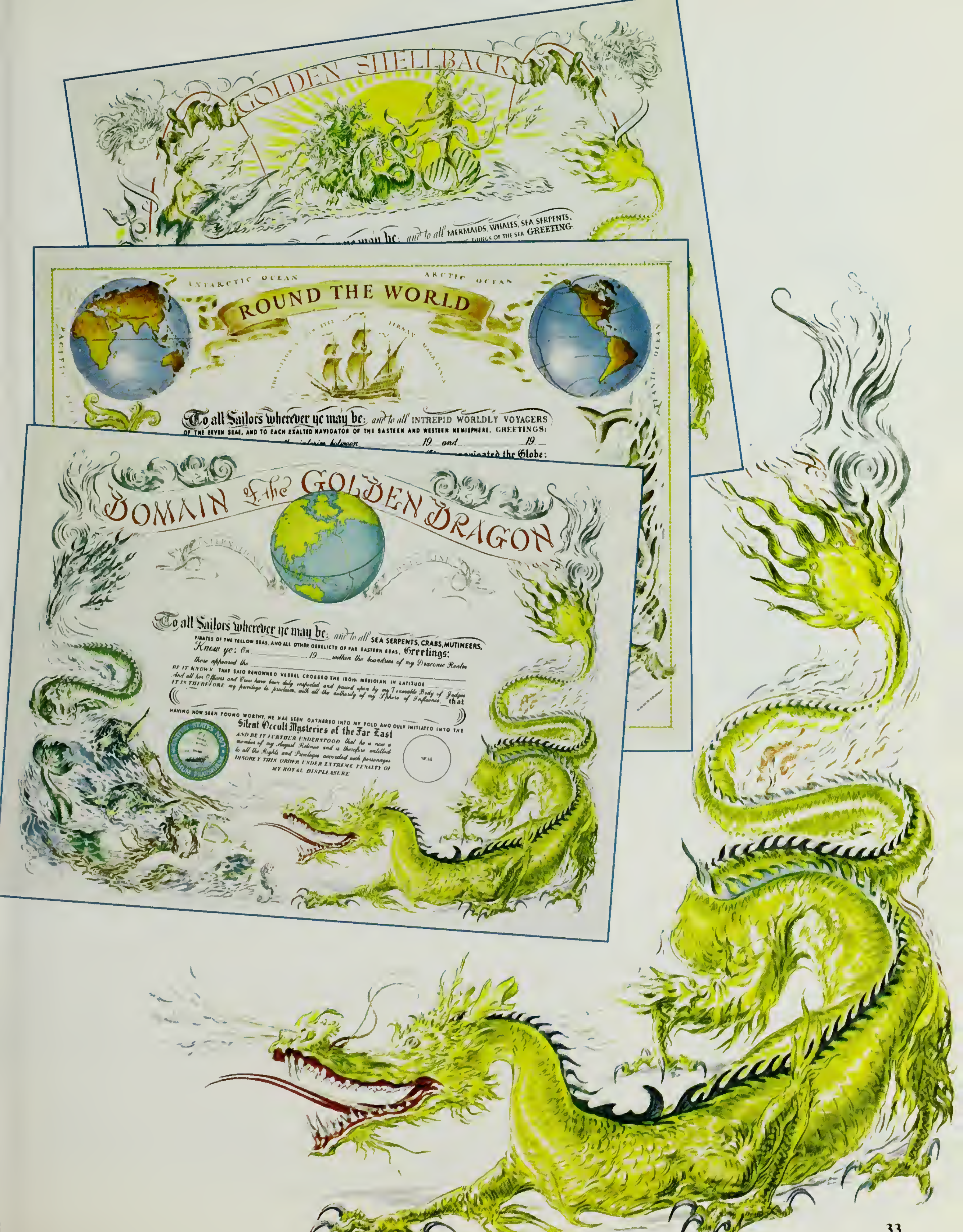
If you've crossed the equator, you're a Shellback. If you've journeyed below the 66th parallel, you're an old antarctic explorer who entered the Domain of the Antarctic. If you entered the realm of ". . . sea serpents, crabs, mutineers, pirates of the yellow seas, and all other derelicts of far eastern seas," you have been initiated into the Domain of the Golden Dragon.

Varied are the certificates for which a sailor can qualify. Perhaps the most meaningful is that of Plank Owner, by virtue of being a member of a commissioning crew. By tradition, you actually own a plank of that ship; getting it and securing it to one's bulkhead at home may be a problem. Best to substitute the certificate which attests to the fact that the owner ". . . is entitled by the laws of the sea, to all the rights and privileges of a Plank Owner . . ." and ". . . That he is entitled also to clear, free, open and unencumbered title to a single plank in the deck of the aforementioned illustrious unit."

One of the more difficult to obtain is one which honors circumnavigators of the globe—the Round the World certificate. Still, for one who can qualify, it places the owner in a special class with ". . . Tattoed Brethren of the deep, ye followers of the first circler of the World, Fernando Magellan."

Holders of such a certificate have one leg up on old Fernando—he didn't live through his voyage, while modern day circlers survive.

Who among you have met with ". . . polar bears, walrus, seals, whales, huskies, martens, foxes, reindeer . . ." and what all? Why, the ones who



GOLDEN SHELLBACK

... may be: and to all MERMAIDS, WHALES, SEA SERPENTS, ... THINGS OF THE SEA GREETING:

ROUND THE WORLD

To all Sailors wherever ye may be: and to all INTREPID WORLDLY VOYAGERS OF THE SEVEN SEAS, AND TO EACH EXALTED NAVIGATOR OF THE EASTERN AND WESTERN HEMISPHERE, GREETINGS:

... between ________ 19__ and ________ 19__

... the Globe:

DOMAIN of the GOLDEN DRAGON

To all Sailors wherever ye may be: and to all SEA SERPENTS, CRABS, MUTINEERS, PIRATES OF THE YELLOW SEAS, AND ALL OTHER DERELICTS OF FAR EASTERN SEAS, Greetings:

Know ye: On ________ 19__ within the boundries of my Draconic Realm there appeared the ________

BE IT KNOWN THAT SAID RENOWNED VESSEL CROSSED THE 180th MERIDIAN IN LATITUDE ______

And all her Officers and Crew have been duly inspected and passed upon by my Venerable Body of Judges

IT IS THEREFORE my privilege to proclaim, with all the authority of my Sphere of Influence, that ______

HAVING NOW BEEN FOUND WORTHY, HE HAS BEEN GATHERED INTO MY FOLD AND DULY INITIATED INTO THE Silent Occult Mysteries of the Far East

AND BE IT FURTHER UNDERSTOOD that he is now a member of my August Retinue and is therefore entitled to all the Rights and Privileges accorded such personages

DISOBEY THIS ORDER UNDER EXTREME PENALTY OF MY ROYAL DISPLEASURE

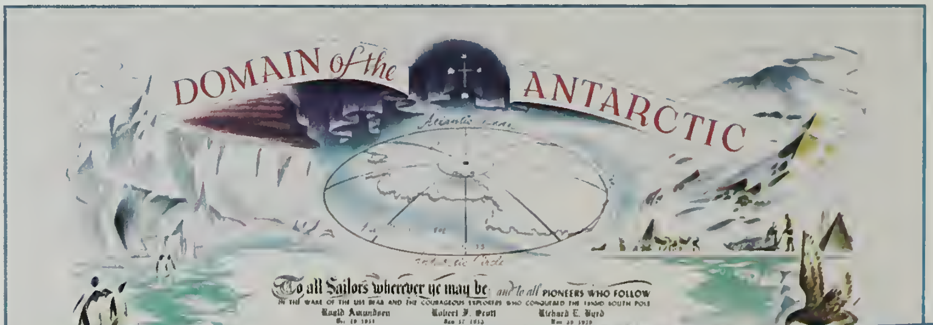
SEAL

journeyed far north to the Realm of the Arctic Circle. There, one paid his initiation fee in "... the land of Icicles, Blizzards, Williwaws, and myriad Snowflakes. . . ."

There's one certificate which sailors aboard aircraft carriers may have a little difficulty in qualifying for—at least that's been the case in the last three decades when carriers became wider and wider. That document is the Order of the Big Ditch. Awarded to those who transit the Panama Canal, the certificate informs the world that its owner went from ocean to ocean, either east or west, and thereby saved himself a tiring (additional) journey of 7,837 miles.

On the next few pages, we've highlighted some of the certificates a Navy person can collect in a career. Certainly we haven't shown or mentioned all that are available.

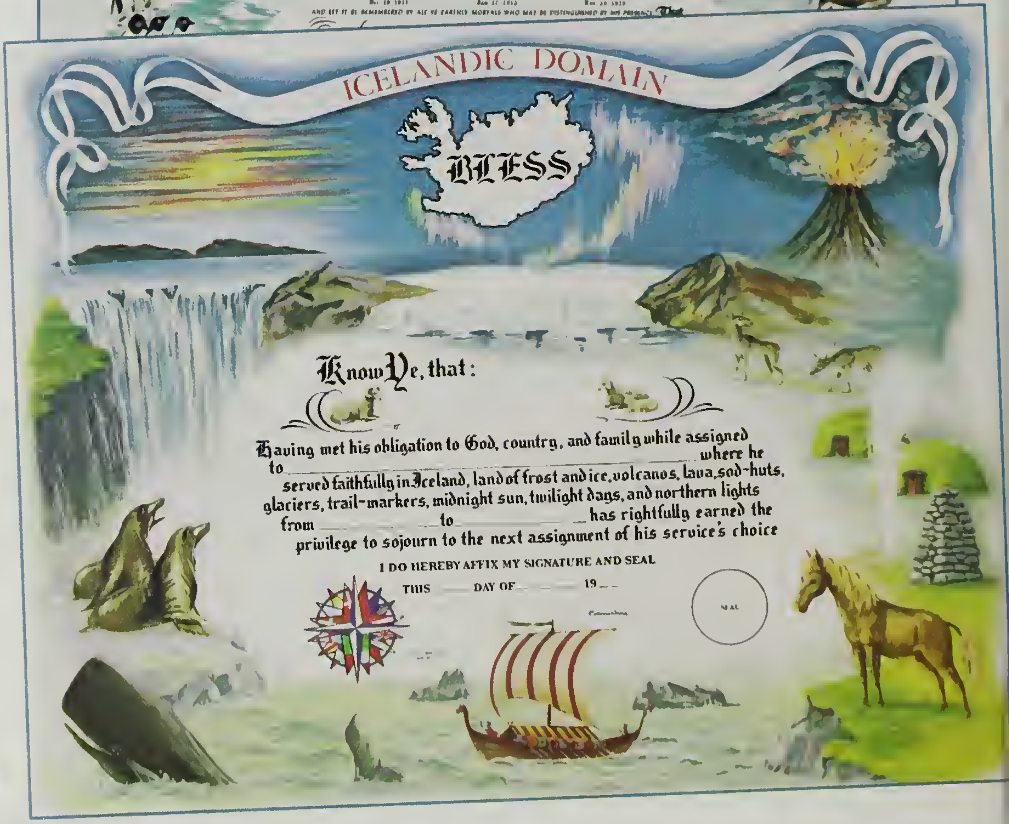
The certificates shown here were provided to ALL HANDS courtesy of the U.S. Naval Institute, U.S. Naval Academy, Annapolis, Md. 21402.—J.F.C.


DOMAIN of the ANTARCTIC

To all Sailors wherever ye may be and to all PIONEERS WHO FOLLOW IN THE WAKE OF THE [illegible] AND THE COURAGEOUS EXPLORERS WHO CONQUERED THE [illegible] SOUTH POLE

Roald Amundsen
Robert F. Scott
Richard E. Byrd

AND LET IT BE REMEMBERED BY ALL YE EARTHLY MORTALS WHO MAY BE DISTINGUISHED BY MY PRESENCE That


ICELANDIC DOMAIN

BLESS

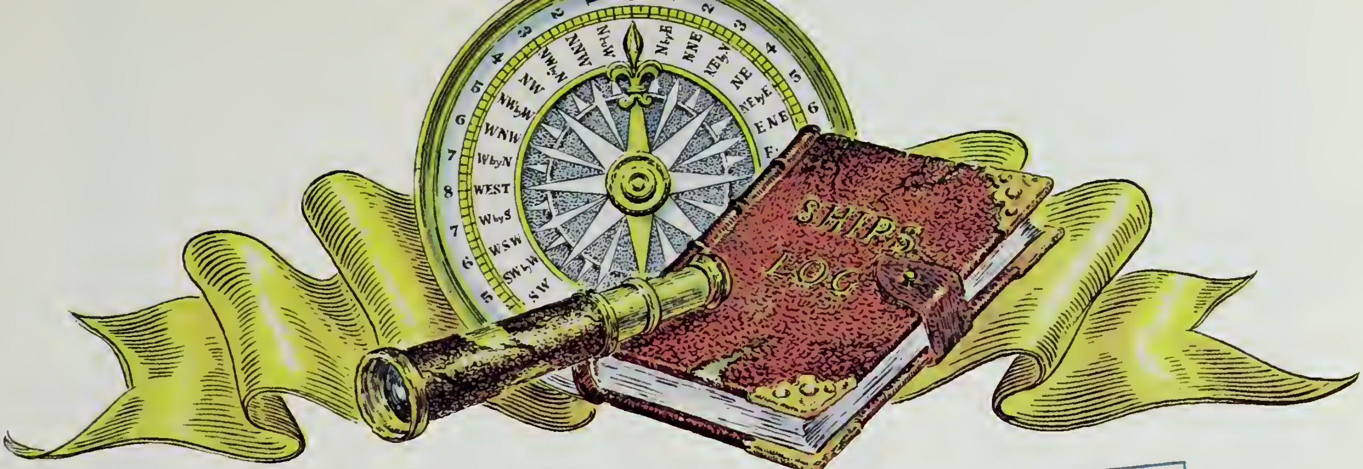
Know Ye, that:

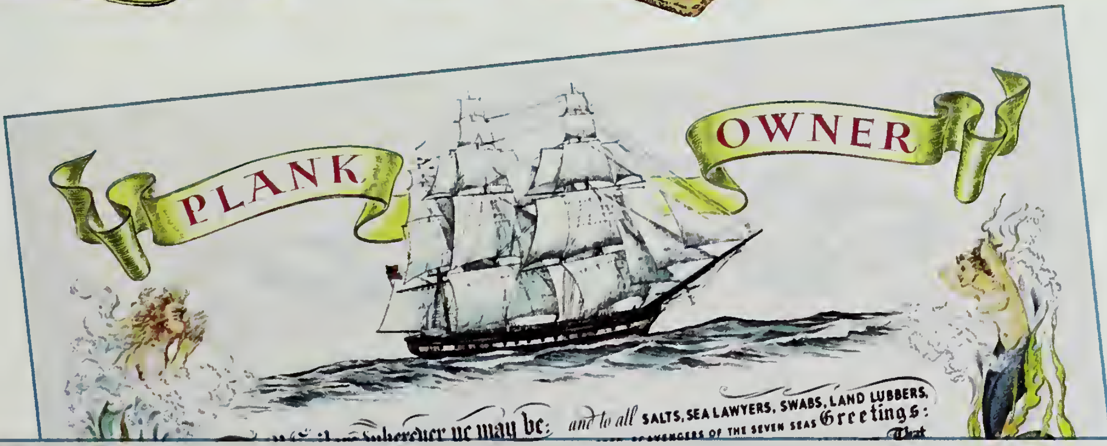
Having met his obligation to God, country, and family while assigned to ________________ where he served faithfully in Iceland, land of frost and ice, volcanos, lava, sod-huts, glaciers, trail-markers, midnight sun, twilight days, and northern lights from ________ to ________ has rightfully earned the privilege to sojourn to the next assignment of his service's choice

I DO HEREBY AFFIX MY SIGNATURE AND SEAL

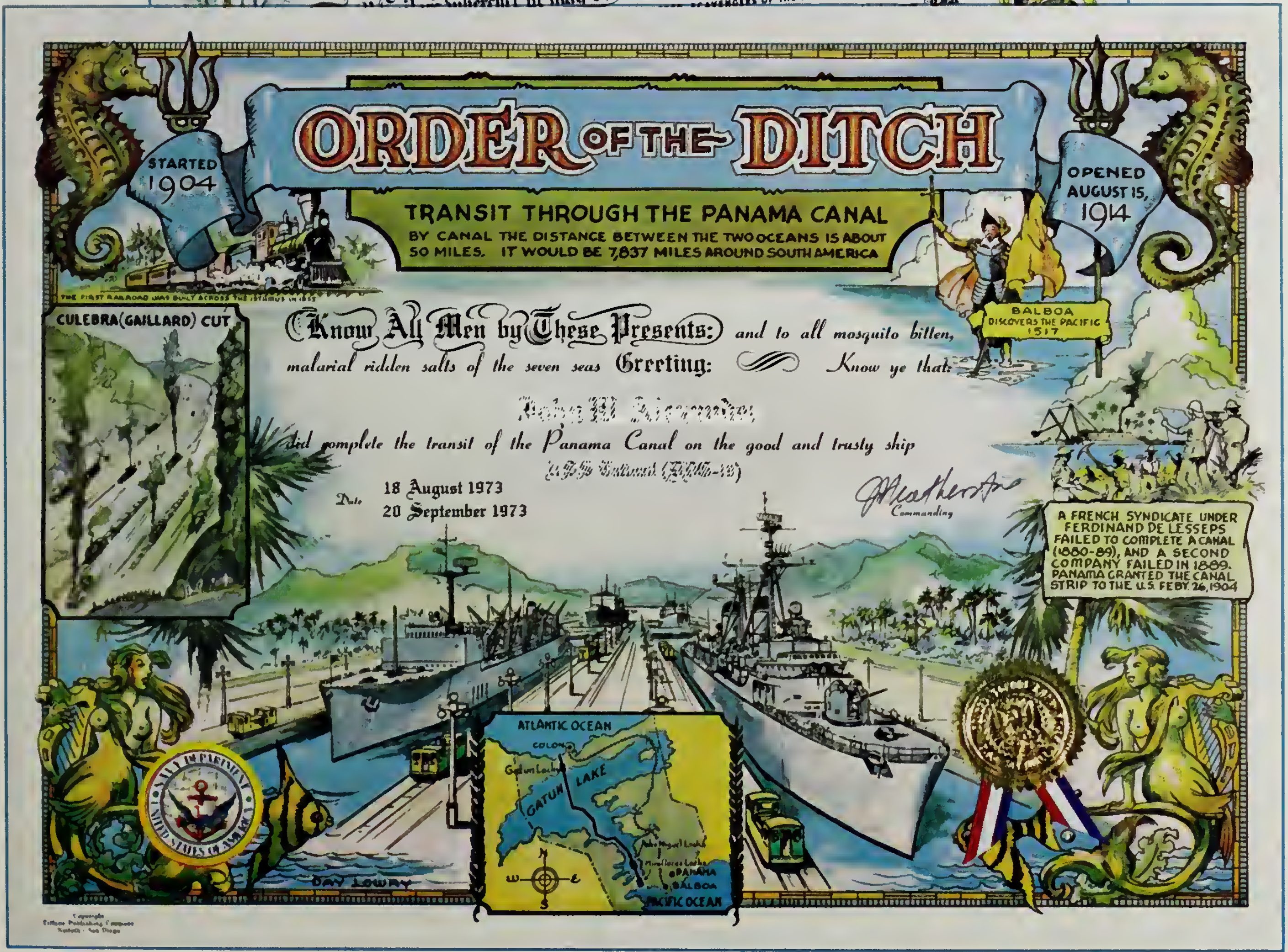
THIS ____ DAY OF ________ 19__

SEAL




PLANK OWNER

... wherever ye may be: and to all SALTS, SEA LAWYERS, SWABS, LAND LUBBERS, ... SCAVENGERS OF THE SEVEN SEAS Greetings: ... That


STARTED 1904

ORDER OF THE DITCH

OPENED AUGUST 15, 1914

TRANSIT THROUGH THE PANAMA CANAL

BY CANAL THE DISTANCE BETWEEN THE TWO OCEANS IS ABOUT 50 MILES. IT WOULD BE 7,837 MILES AROUND SOUTH AMERICA

THE FIRST RAILROAD WAS BUILT ACROSS THE ISTHMUS IN 1855

CULEBRA (GAILLARD) CUT

BALBOA DISCOVERS THE PACIFIC 1517

Know All Men by These Presents: and to all mosquito bitten, malarial ridden salts of the seven seas Greeting: Know ye that:

[illegible]

did complete the transit of the Panama Canal on the good and trusty ship

[illegible]

Date 18 August 1973
20 September 1973

Commanding

A FRENCH SYNDICATE UNDER FERDINAND DE LESSEPS FAILED TO COMPLETE A CANAL (1880-89), AND A SECOND COMPANY FAILED IN 1889. PANAMA GRANTED THE CANAL STRIP TO THE U.S. FEBY. 26, 1904

Copyright
[illegible]

Grains of Salt

"Eating crow" is never easy. But if that proverbial meal seems less than appetizing, "fore-'n'-aft cap a la carte" complete with gold trimmings is indigestible. Nevertheless, history does record one such meal offered to a Navy captain, and *Old Ironsides* was the maitre d'.

But more about that later.

In 1794, the United States was at war with the Barbary pirates. American businessmen were clamoring for naval protection for their merchant ships which were being pirated off the North African coast. Congress was helpless. There was no U.S. Navy to speak of and hadn't been since shortly after the Revolutionary War. Ships had to be built.

The government authorized the construction of six frigates to fight the pirates and protect American shipping off Algiers—the main offender. The Naval Act contained the stipulation, however, that if peace were made with the Barbary States, the building program would be shelved.

Since there was no Navy Department, Secretary of War Henry Knox was charged with coordinating the building of a fleet. He made the project a national effort by recruiting volunteer workmen from every state, and by ordering timber from the Carolinas and Georgia; ordnance from Maryland, Pennsylvania, New Jersey and Connecticut; canvas from Boston; and anchors and cordage from every available source.

Next, Knox commissioned Joshua Humphreys, a Philadelphian, to design the warships. That's when the controversy began. Humphreys had a revolutionary idea—build a frigate capable of cutter speeds and load her with heavy guns. Naval shipbuilders from the old school scoffed. The plan was clearly impossible.

No one had ever devised a way to arm a ship heavily yet still keep her light enough to attain high speeds. Speed could be attained only by sacrificing armament. The Philadelphian ignored the scoffers and designed an extra long frigate with the lines of a cutter and then added heavy timbers to support the big guns.

Construction began. *Constitution* was to be built in Boston; *President* in New York; *Constellation* in Baltimore; *Congress* in Portsmouth; *United States* in Philadelphia; and *Chesapeake* in Norfolk. Before construction was well underway, however, the project was abandoned. A peace had been made.

But with the end of one war, another began against French privateers on the high seas. Construction was again authorized and in late summer 1797, *United States* and *Constellation* were launched. On Sept. 20, *Constitution* slid down the ways at Hartt's Shipyard—and stuck!

Americans saw the incident as a bad omen, but foreigners thought it was a great joke. Here the "mighty" American Navy could not even launch her ships without incident. It was rumored among European countries that, in all probability, the new fleet would sail no more formidably than the Yankee ship of state.

Constitution did get underway. Rated at 54 guns and with her 400-man crew under the command of Captain Samuel Nicholson, she saw her first action in the quasi-war with France.

That was the testing ground and *Constitution* learned her lessons well enough to be Commodore Edward Preble's flagship in the Tripolitan War soon thereafter. Still, her greatest victory was yet to come.

By 1812, freedom of the seas was again being threatened, this time by the British Lion. Captain Dacres, commanding officer of the British frigate *Guerriere,* claimed he had the "best fighting ship on the seas" and was itching to prove it. So confident was he of his prowess, CAPT Dacres publicly boasted that he could whip any American ship in 15 minutes or less and offered to wager his hat to all takers.

On Aug. 19, 1812, the Englishman had a taker—Captain Isaac Hull, commanding officer of USS *Constitution.* They met quite by accident on the high seas and *Guerriere* greeted the Yankee frigate with a broadside. Hull swung *Constitution* sharply and the enemy shells fell short.

Guerriere kept coming, firing as she came. Another broadside missed and *Constitution's* crew looked to Hull for the order to return fire. The American captain shouted through his trumpet, "Hold your fire, boys. Hold your fire."

A third broadside tore splinters out of *Constitution's* deck and again the gunnery officer asked permission to fire. "Not yet, sir," replied Hull. "Not yet."

A fourth broadside bounced off *Constitution's* side and the adversaries were but a pistol shot apart. A cannonball ploughed through the American poop deck and British marines began taking potshots at the crew. One Yankee seaman fell.

Still came the order: "Not yet! Hold your fire! Not yet!"

Another musket volley raked *Constitution's* deck and *Guerriere* moved even closer, Dacres convinced that victory was imminent. How could the outcome be otherwise against a Yankee ship that was either afraid, or unable, to return fire?

Suddenly Hull's ship was pushed almost within boarding range of *Guerriere* and he yelled, "Fire! Pour it into them, boys!"

When the smoke had cleared. *Guerriere* was half listing on her beam and her deck looked like a toothpick collection.

"Fire!"

Guerriere's mizzenmast came down and fire broke out in the forecastle.

"Hull her boys!" shouted CAPT Hull.

And holes appeared at the waterline.

"Again boys!"

With that, the crew of a severely damaged *Guerriere* tried boarding *Constitution,* the ship they could whip in 15 minutes or less. American marksmen made short work of the ill-fated Britishers; none survived the Yankee onslaught.

Hull ordered another broadside at point-blank range and then another. *Guerriere* was finished.

By then *Constitution* had been dubbed "Old Ironsides" by her crew—so many cannon balls had bounced off her thick oaken sides. Dacres boarded *Constitution* and the defeated captain offered his sword to Hull, as was the tradition. Hull, though, not caring for that sort of thing, handed CAPT Dacres back his sword. Then Hull said:

"But, if you don't mind, Captain, I'll trouble you for that hat!" A much humbler captain stood silent and bareheaded in the sun, not the last to "eat his hat" at the hands of Old Ironsides. ⚓

BY JOHN YONEMURA

". . . Barely visible were three sampans, clustered in the jungle growth. As the PBRs approached, the sampans moved further into the undergrowth.

"The chief fired several warning shots into the trees above the sampans, hoping this would draw them out . . . but there was no response. He contacted Vietnamese authorities and requested permission to destroy the sampans if necessary. Permission was granted.

"He ordered a few exploratory rounds fired from the forward .50-caliber machine gun. One of the rounds struck the largest sampan, causing a violent explosion that ripped the sampan apart, spewing clouds of black smoke and fire above the palm trees, and setting the other two craft afire . . . the sampans had been carrying ammunition for the Viet Cong.

"The patrol continued . . . The other sampans, all thoroughly searched, yielded nothing." (ALL HANDS, *"On Coastal, Air and River Patrol," December 1966).*

Today, a small segment of the Navy's Coastal Riverine Force remains. As Vietnam gave way to more current issues, the "brown water" Navy—developed especially for Vietnam—also gave way to higher priorities.

History records coastal and riverine operations as far back as America's Revolutionary War, but it wasn't until the mid-1960s that such operations were refined as used in Southeast Asia. There, the coastal riverine force used heavily armed, shallow draft, high-speed boats to stop enemy supply infiltration and pursue and strike the enemy in coastal bays, inland rivers and waterways.

"Anything you talk about in terms of brown water Navy is automatically associated with Vietnam," said Commander Richard M. Dunbar, former commanding officer of Coastal River Division Eleven (CRD 11). "Because most delta areas are in tropical zones, you have to look at Vietnam as a comparison base. But this is rather unfortunate, because this type of warfare can be adapted anywhere in the world."

Based on Mare Island, near Vallejo, Calif., CRD 11 trains active and Reserve personnel in this type of warfare, to preserve the state of the art.

Riverine Vets

"Keeping Vietnam riverine veterans in the program has been very difficult," the commander said. It seems that only five percent of CRD 11's active crew (68 officers and enlisted men) had Vietnam riverine duty and 25 per cent of the Reserve crew (173 officers and enlisted men) had combat riverine experience.

"A lot of the men who were on the boats in Vietnam as E-5s are now master chiefs or limited duty officers and have far removed themselves from this program," CDR Dunbar explained.

CRD 11 operates under Coastal River Squadron One in San Diego. Another coastal river division, 22, trains in the Mississippi River Delta under the guidance of Coastal River Squadron Two at Little Creek, Va. CRD 11, with a fleet of 31 boats, operates in 1,600 acres of the Sacramento River Delta, which is very similar to the real Mekong Delta.

Primary among the six types of craft used is the river patrol boat—the PBR.This fiberglass 31-footer is propelled by a diesel-powered water jet system which eliminates the conventional propeller, making the boat's draft only nine inches at full speed. "Its maneuverability makes it the workhorse of the riverine force," says Lieutenant David L. Walker, CRD 11 operations officer.

It can make an emergency stop and a 180-degree turn, both at full speed and within 31 feet. It has a crew of four and is armed with twin .50-caliber machine guns forward and an interchangeable grenade launcher/M60 machine gun amidships.

Another riverine craft is the assault support patrol boat (ASPB). It is 50 feet long and has among its automatic weapons a 20mm cannon. Considered the destroyer of the riverine force, it has a six-man crew and is conventionally powered by diesel engines.

The command and communications boat (CCB), with a crew of 11, serves as the on-scene afloat operations center. The CCB is 61 feet long, is diesel powered, and is outfitted with 40mm, rapid fire grenade launchers and 20mm guns.

The patrol boat, fast, which was used mostly for coastal patrol in Vietnam, was later incorporated into riverine operations because of its greater on-station time and firepower. It carries an over-and-under 81mm mortar and a .50-caliber machine gun.

A Navy UH-1B helicopter flies cover for PBRs on the Cho Gao canal in the Mekong Delta in 1968. (Photo by LT T. S. Storck)

A PBR and PCF take part in an exercise in the Sacramento River Delta.

The armored troop carrier (ATC) is also a converted LCM-6 hull. In addition to its 11-man crew, it can carry 45 fully loaded troops.

On Reserve weekends or summer active duty for training, the boat crews are completely integrated with Regular Navy types. Both Reserves and Regulars serve as boat captains.

Many of the reservists are enthusiastic about CRD 11. "I like the action," said one. "We don't sit around and read books."

Part of this enthusiasm comes from the excitement of manning the boats and heading for the Suisun sloughs. With guns loaded with blanks and helmets securely fastened to their heads, the crews learn boat tactics, practice search and seizure, provide cover for troop landings and defend their boats against ambushes in the narrow waterways. In many of the exercises there are good guys and bad guys to add realism to the drills.

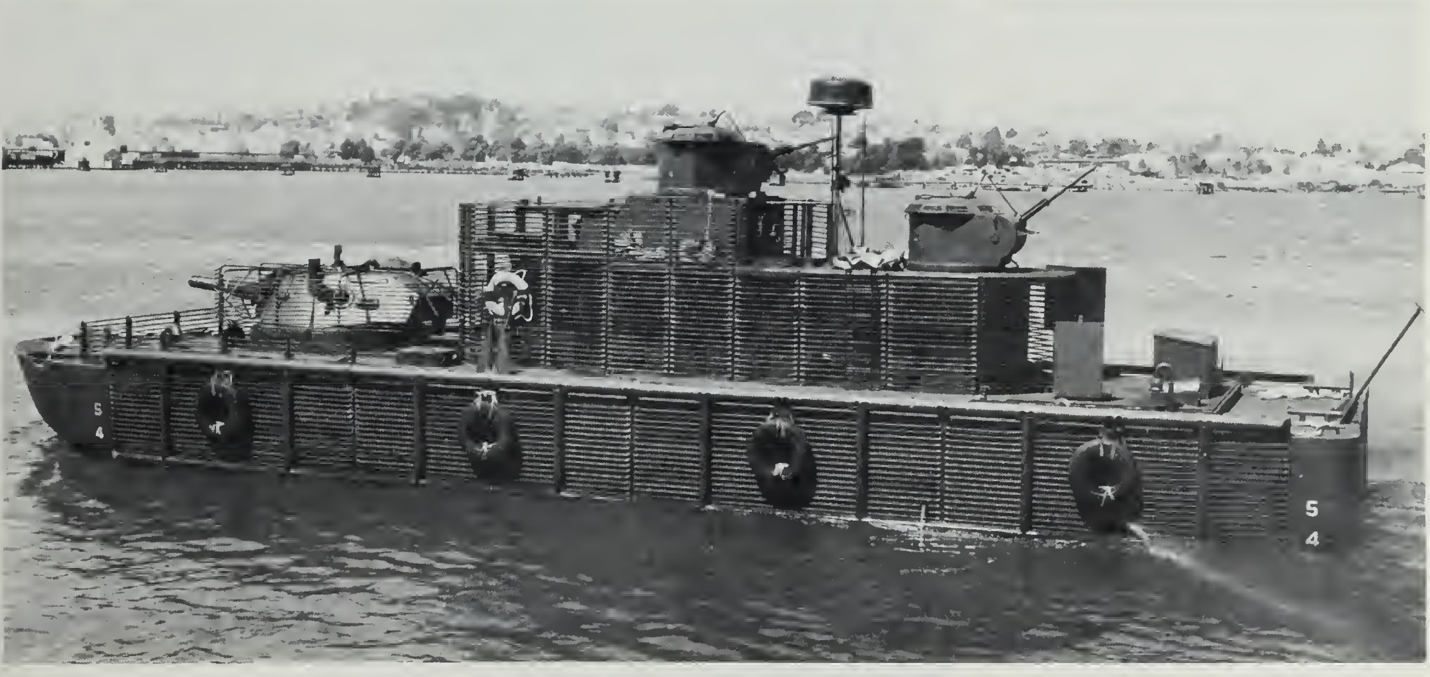
CRD 11 organizes and participates in various exercises throughout the year. The unit has worked with Marine Reserves in river assault drills, with Seabees in setting up and defending base camps, and with National Guardsmen and Coast Guardsmen in joint-service exercises. One such exercise last March was a re-enactment of the *Mayaguez* incident, the 1975 takeover of the U.S. merchant ship by Cambodians.

The river rats, as they call themselves, don't venture into the sloughs from October through January. "That's duck season," explained CDR Dunbar, "and we leave the area to the hunters."

An important sidelight to all this training is CRD 11's popular community relations program. During the past few years, an estimated 250.000 people have visited the command or have seen coastal riverine warfare demonstrated by CRD 11. "I consider it recruiting support," said CDR Dunbar.

Some of the numerous scout and school organization visits are arranged by the 12th Naval District, but most of them are set up by local school teachers and recruiters who have learned that a visit or demonstration by CRD 11 is good for business.

High school and college ROTC units from all over the West Coast visit CRD 11, sometimes spending several days there. In 1975—as another example of its popularity—a PBR went up the Columbia River to Idaho. At various stops, arranged and



publicized by recruiters, almost 7,000 persons visited the boat.

CRD 11 is not content with remaining static and is trying to extend its capabilities. For instance, little is known how these boats—especially the PBR—would perform in cold water regions. Just how would the fiberglass hull and water jet function in icy water?

"We're hoping to put together a cold water training operation somewhere in Alaska," said CDR Dunbar. "We would like it to coincide with an unconventional warfare exercise coming up in the near future."

One recent exercise called for the deployment of 10 boats to Seattle. "Throughout Vietnam there was never a concentrated effort to deploy a division of our boats," explained the commander. "Consequently, we developed no expertise in what it would take to deploy a certain number of boats for a certain number of days. It was a very profitable experience."

Today, the coastal riverine force is preserving the expertise that could, one day, turn out to be a decisive factor in protecting coastal or river delta areas of the free world. Added to that preparedness, CRD 11's community relations and recruiting support are proving profitable to the Navy's all-volunteer force. ⚓

Top: Engineman 2nd Class J. F. Gibson (left) and Hull Technician 2nd Class M. G. Williams diagnose the ailment of a generator. Above: The monitor, heavily armed and armored, is the battleship of the riverine force.

Waterborne Assault

BY JOHN YONEMURA

Seabee Reserve training is not an easy jog around an indoor track. It's slogging through the mud while carrying a full pack and almost believing that the war games are for real.

While writing about Coastal River Division 11 at Mare Island, I took part in a full-scale Seal *vs.* Seabee Reserve training exercise. I had played at war when I was a kid and thought it would be fun to play again. It turned out to be serious business.

Late one night, I found myself creeping along a dirt road in the grassy marshland with a squad of Seals. They carried M16s, poised and ready. I clutched a cassette recorder.

Under a full moon—I felt so visible—I expected to be shot at any moment. The Seals had opaque, black camouflage smeared on their hands and faces. I didn't, and could "feel" my face reflecting moonlight. Thankfully, I knew that all weapons were loaded with blanks.

We were the aggressor force. The Seabees had set up a Mekong Delta-like base camp on a small peninsula earlier in the week. Their task was to defend the camp with strategically placed boobytraps, machine gun nests, roving patrols and coils of concertina wire.

After a 45-minute boat ride into the Suisun slough of the delta, a mini-ATC (assault troop carrier) landed us about a mile from the Seabee camp.

The Seals had "cased" the enemy camp on two consecutive nights. Now, knowing the bunker placements, they were relatively confident—but they took no chances. They anticipated the unexpected—a roving patrol or newly placed bunker—just as they would in a real situation.

For me, everything seemed exaggerated; my senses were overreacting. I could hear every step I took, and I cursed my imagined clumsiness.

"If you give us away, I'll . . . ." one Seal vehemently had warned me earlier. But he added, "If you don't, I'll give you a case of beer."

I didn't blame him, since I was not one of his comrades in arms. I was just an observer along for the ride. I didn't give them away—but I never did get that case of beer.

We were almost there. Then, right on schedule, the other squad of Seals

Left: Seals made themselves as comfortable as possible in the mini-ATCs for the 45-minute ride into the "delta." Below: The Seal team reviews their plan of attack one last time.

attacked from the opposite side of the triangular Seabee camp. They didn't have the element of surprise, the roar of their boats' engines prevented that. But they landed and attacked simultaneously, taking a Seabee outpost immediately.

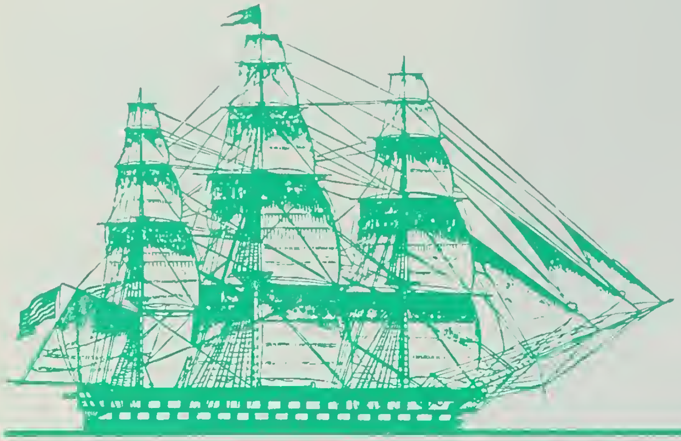
Flares lit the sky. Percussion simulators exploded, sounding like mortar and cannon fire. M16s and .50-caliber machine guns chattered in abrupt bursts.

Then we attacked. We did have the element of surprise. Our point man, crouching low, scurried forward. With two quick bursts of his M16, a machine gun emplacement on one corner of the camp's perimeter was taken.

In a matter of minutes the camp was ours. The "war" was over.

As the excitement ebbed, I began to feel weary. It was 0400. I felt pain in my legs. I hadn't noticed before but thorns had lodged in my thighs, probably from jumping into the brush from the boats when we had landed. Funny what adrenalin pumping through your system does to your senses.

Several things had impressed me during the exercise. I could really appreciate the night boat tactics of the CRD 11 personnel. I could appreciate the purpose of the exercise itself: preserving expertise in all phases of riverine warfare for possible future need. Most of all, I could appreciate the abilities of the Seals, those professional warriors. All I had heard about them held true, at least in this case. I had expected no less from them, and wasn't disappointed. ⚓



for the Navy Buff

Q: *What is the difference between sloops-of-war, frigates, and ships-of-the-line?*

A: During the Revolutionary War and into the 19th Century, naval vessels were grouped into these three main classes. The characteristics of each were:

- Sloops-of-war—Small sailing warships carrying 10 to 20 guns on one deck only. Gun ratings varied with the era.
- Frigates—Cruisers of their day, these were next in size. They generally rated from 28 to 44 guns which were mounted on the spar and gun decks immediately below.
- Ships-of-the-line—Battleships of the sailing days. Largest of all sailing warships, they were equipped with 64 to more than 100 guns of various sizes. Two or more gun decks located below the spar deck were their distinguishing feature.

Q: *How many submarines did the U.S. Navy have during World War II and how many were lost to enemy action?*

A: When the Japanese attacked Pearl Harbor, the Navy had 111 submarines—60 in the Atlantic Fleet and 51 in the Pacific Fleet.The number of American subs peaked at 247, of which 52 were lost along with 3,505 submariners. After the invasion of North Africa, the U.S. decided to leave submarine operations in the North Atlantic to our allies and the Pacific became the hunting ground for the American submarine force. These submarines sank 1,750 Japanese merchant ships, and more than 200 combatants—55 percent of the total Japanese tonnage sunk in the war. For an island nation such as Japan, these figures represented a fatal blow.

BY JO2 DAN WHEELER

Q: *What was "Washington's Navy"?*

A: The U.S. Navy officially began on Oct. 13, 1775, when the Continental Congress authorized the outfitting of a number of ships for defense. The first Naval Committee bought and outfitted one 24-gun ship, *Alfred,* plus the 20-gun *Columbus,* and two brigs, *Doria* and *Cabot.* They were ready for sea by December 1775. However, this fleet was predated by a little-known group of ships that came to be known as Washington's Navy.

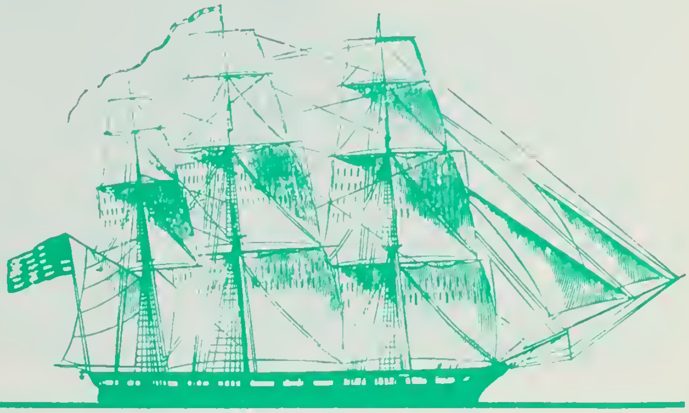
During the summer of 1775, General Washington was concerned as he saw British ships sail supplies and munitions in and out of the Boston harbor untouched. He needed supplies and ammunition for his army to carry on the siege of the British in Boston. Using funds provided for his Army, Washington painfully assembled a small fleet of eight vessels that might be powerful enough to capture some of the British supplies and ammunition. The schooner *Hannah,* first of "Washington's Navy," was in service in September 1775. Seven other ships followed: *Lynch, Franklin, Lee, Harrison, Warren, Washington* and *Hancock.* With the establishment of the Continental Navy, Washington released his ships and their crews from active service.

Q: *What were loblolly boys?*

A: The loblolly boy is first referred to in the American Revolutionary War. This rating then appears in the 1798 muster roll of the USS *Constellation.* Loblolly was a thick gruel served to patients in a ship's sickbay; the boys who had the task of serving it were called "loblolly boys." Loblolly eventually came to be slang for any medicine.

Q: *Old photos of Navy gunners in action always seem to catch them with their mouths wide open. Was it a coincidence or was there some reason for their dropped jaws?*

A: Gunners used to open their mouths when firing large guns, but their jaws weren't dropped in amazement. Back in the days before ear plugs and other protective hearing devices, keeping his mouth open was the only way a gunner



could protect his ear drums. When the mouth is open, air waves set in motion by the discharge of the cannon enter the throat as well as the ears. Consequently, the sudden pressure against the outside of the drums is counteracted by an equal pressure against the inside, thereby preventing ear damage.

Q: *Who was Harry Bluff?*

A: During the 1830s and early 1840s, there was a growing dissatisfaction with the way the Navy was being run and the amount of money that was being authorized for use by the Navy. The public was calling for naval reform and in 1840 and 1841 the *Southern Literary Messenger,* a Richmond, Va., periodical, ran a column entitled "Scraps from the Lucky Bag" written by a person calling himself Harry Bluff. These articles attracted a lot of attention and were even reprinted for use by Congressmen. The writer accused the Board of Naval Commissioners of waste, extravagance and bad judgment in building and repairing public vessels; of ruinous delays in fitting out ships; and of bad accounting and misstatements in making reports. According to Harry Bluff, the commissioners had ". . . turned out upon the Navy a nest of tubs and sent them to sea as men-of-war."

In 1842, the Board of Naval Commissioners was disbanded and Congress began taking a closer look at the management of the Navy. This led to reforms in areas where management was lax.

Q: *In what year did the first underway replenishment of a U.S. Navy ship take place?*

A: Supplying the fleet while at sea became a reality during the War with Tripoli in 1804. Commodore Edward Preble had tried but failed to maintain a continuous blockade of Tripoli. Short provisions forced his ship to leave the area and get more supplies. The ketch *Intrepid* was finally ordered to transfer fresh provisions to the ships in Preble's squadron while they were still at sea enforcing the blockade.

Q: *Is it true that the Navy had an "aircraft carrier" during the Civil War?*

A: Logic would immediately dictate that the answer to this one be "no," but, believe it or not, the answer is "yes"—with a qualifying statement. USS *George Washington Parke Custis* of Civil War days might be legitimately labeled a "carrier" since she was a balloon boat from which observation balloons were launched over enemy installations. *Custis,* 122 feet long, cost $150 to build.

The first modern aircraft carrier could be said to have been the brainchild of a Frenchman who foresaw in 1909 ". . . flights over the ocean made possible by a new type of ship . . . [whose] deck will be clear of all obstacles, flat and wide as possible. [It will] have the aspect of a landing field . . . its speed shall equal that of a cruiser . . . housing of planes will be arranged below deck and planes will have folding wings . . . and to one side there will be the service personnel workshop. . . ."

What had been predicted came about in November 1910 when the cruiser USS *Birmingham* was rigged with a wooden platform on her foc's'le, and a civilian named Eugene Ely flew a bi-wing off the 57-foot (canted) runway—the first takeoff from a warship by an airplane.Two months later, Ely landed a plane on a platform rigged on USS *Pennsylvania.*

Q: *What was the name of the Navy's first aircraft carrier designed from the keel up?*

A: In 1934, USS *Ranger* became the Navy's first aircraft carrier which was not built on a converted cruiser's hull.

Q: *Now that the bell-bottomed uniforms are being tested again for use by the fleet, what is the traditional explanation for each of its parts?*

A: Navy tradition explains the reason for each part of the uniform soon to be worn again by E-1 through E-4 as follows:

- Jumper collar—Sailors of old wore their hair braided in a pigtail which was kept stiff with tar.To protect their

clothing, they wore a piece of cloth tied around their neck—eventually this cloth was sewn to the jumper as a collar.

- Piping and stars—Piping was first introduced as decoration and later used to distinguish enlisted rates. The stars of the collar are purely decorative. Some sailors believe that the three stripes were adopted to commemorate Admiral Lord Nelson's three great sea victories—Copenhagen, the Nile and Trafalgar—but there is no proof to substantiate this.
- Neckerchief—Some say that sailors wear the black neckerchief to mourn the death of Admiral Lord Nelson, but, again, there is nothing to substantiate this idea. Actually, it was adopted after the jumper collar became part of the uniform to serve the same purpose that the unattached collar had served formerly—to protect the uniform from tar used to stiffen hair. When rules of smartness and appearance were introduced, sailors' hair was cut shorter and the pigtail was no longer necessary, nor was the tar. Today, the neckerchief is merely decoration and is worn under the collar and secured with a square knot in front.
- Bell-bottomed trousers—there are at least three logical reasons for these: they are easily removed if one goes over the side; they cover one's boots or shoes easily to keep rain and salt spray from running into them; and they are easy to roll up above the knees while scrubbing decks. Additionally, they can hold a lot of air when tied off at the ends, and can be used as an emergency flotation device.

Q: *How come cooks in the Old Royal Navy are so often depicted as having one leg, or, at best, some other disability?*

A: Cooks in the Royal Navy were appointed by warrant and were often one-legged pensioners from the naval hospital at Greenwich. His position didn't require him to have any knowledge or training in the art of cooking since boiling water for pea soup or salt "junk," and keeping his pots and galley reasonably clean were about the extent of his duties.

Q: *I've heard a lot of talk about how bad the food was in the "Old Navy." What, exactly, did a day's ration consist of in the days of sail?*

A: The ration varied from day to day, but what you heard about the quality and variety of food served aboard "Old Navy" ships is accurate as evidenced by this menu taken from the 1894 records of USS *Portsmouth:*

DAY	*BREAKFAST*	*DINNER*	*SUPPER*
Mon.	beans	bean soup	canned mutton
Tues.	cracker hash hardtack coffee	salt horse corn pone hardtack coffee	scouse molasses hardtack tea
Wed.	hardtack	salt pork	dried apples
Thurs.	prunes hardtack molasses coffee	plum duff salt horse hardtack molasses coffee	cracker hash hardtack molasses tea
Fri.	cracker hash hardtack molasses coffee	salt horse corn bread hardtack molasses coffee	scouse hardtack molasses tea
Sat.	black molasses coffee	hardtack coffee	hardtack tea
Sun.	cooked dried apples molasses coffee	plum duff salt horse hardtack molasses coffee	cracker mutton hash hardtack molasses tea

The molasses was the old-fashioned blackstrap variety, thick and heavy. As a rule, the coffee was so weak that a sailor could see the bottom of the barrel when it was full. The pork and salt horse were packed in large barrels that had to be opened to leeward because of the odor. Before eating these, the crew would generally tow them overboard in a cargo net to get rid of the smell and remove the rock salt. This didn't create any problems since even the sharks, it is said, would not touch the meat. Scouse was hardtack soaked in leftover soup—not a popular meal.

Q: *Has a lieutenant in the Supply Corps, for instance, always been thought to be equal in rank and status to a line officer holding the same rank?*

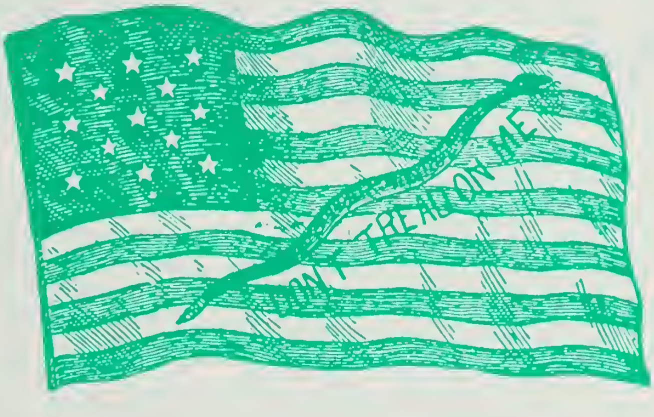
A: No. Almost from the beginning of our Navy, officers in corps other than the "military corps" of the Navy were thought to be inferior in status. Pursers were first given the status of commissioned officers by an act of Congress in 1812 and from that time on a great deal of bitterness developed over the question of relative rank of supply officers with line officers. Line officers resisted the assignment of relative rank to the staff arguing that rank belonged only to the "military corps" of the sea service. They argued that granting of rank to staff would seriously undermine discipline and harmony of service as well as cause confusion among the ranks.

A respectable lieutenant of the period is reported to have said concerning the dispute: "I hold my rank dearer than life itself, and were any purser of the Navy to sign an official report above me, I would cleave him to the chin with my cutlass. I could never suffer my rank to be outraged in that way; I would rather die."

The struggle for recognition by staff officers surfaced from time to time in the Navy until 1918 when the Secretary of the Navy wrote the final general order on the subject: "The uniform of any given rank in the Navy shall be identical in every respect throughout except for the necessary distinguishing corps devices, and every officer in the Navy shall be designated and addressed by the title of his rank without any discrimination whatever."

Q: *Is it true that the privateer fleet of the American Revolutionary War was larger than the Continental Navy?*

A: Privateering was legalized by the Continental Congress in March 1776 as a means to help break the British embargo and supply needed goods to the colonists. By July 1776, the privateer fleet numbered 136 ships with 1,360 guns—far outnumbering the U.S. Navy's 31 ships and 586 guns. It is no wonder that the privateers grew so rapidly in light of the recruiting advertisements aimed at potential buccaneers. One printed in the *Boston Gazette* was typical: "All those jolly fellows who love their country and want to make their fortune at one stroke, to repair immediately to the Rendezvous at the head of Hancock's Wharf, where they will be received with a hearty welcome by a number of brave fellows there assembled and treated with the excellent liquor called grog." Those "jolly fellows" were immediately recruited into the ranks of what George Washington called "our rascally privateersmen."



Q: *The Continental Navy Jack of 1775, which was resurrected and flew from the jackstaffs of U.S. Navy ships during the Navy's Bicentennial and the nation's Bicentennial, bore a rattlesnake as part of its design, along with the admonition "DONT TREAD ON ME." Why was the rattlesnake, a deadly and despised serpent, used so often to symbolize our nation on early American flags?*

A: Back in the days of the American Revolutionary War, numerous colonial and regimental ensigns displayed many popular symbols including pine trees, beavers, anchors, rattlesnakes, or a combination of two or more. As to why the rattlesnake was chosen, one Revolutionary War writer explained that the rattlesnake's eyes exceed in brightness the eyes of any other animal. Also, it has no eyelids—an indication of eternal vigilance.

The rattlesnake also was thought of as being without guile since it never began an attack (at least, not without warning) nor, once engaged, ever surrendered; therefore, it was pictured as the personification (so to speak) of magnanimity and, perhaps, true courage. It was probably the deadly bite of the rattler, however, which was foremost in the minds of flag designers. The threatening slogan "DONT TREAD ON ME" added further significance to the designs.

Q: *Where did the term "frocking" originate?*

A: We are not sure, but one reader of ALL HANDS offered this explanation: ". . . when a ship lost an officer, either through death, injury or as prize officers of captured vessels, commanding officers usually would fill these voids with midshipmen who had passed the lieutenant's exam. These midshipmen were appointed 'acting lieutenants,' wore the frock (coat) of a lieutenant, were called lieutenant, and had a lieutenant's authority. However, their commissions were pending the approval of the Admiralty, in the case of the English Navy, or Congress. Since a midshipman usually wore a short jacket, it seems he was thus 'frocked' to lieutenant but without the pay until authorized."

The explanation makes sense to us, but we are open to other opinions. ⚓

Mail Buoy

Tin Can Sailors

Sir: Old Salts who have shared the experience of going to sea in destroyers can now swap sea stories and rehash old times as members of a new organization designed especially for destroyermen, Tin Can Sailors. The group will encourage camaraderie among former and current destroyermen by conducting national reunions and publishing a monthly newsletter containing items of interest to members.

Already, Tin Can Sailors has more than 500 members, and it has been estimated that there are at least 75,000 eligible destroyermen. Membership fees, which are tax deductible, range from "Normal Membership Contribution" of $7 to "Honor Membership Contribution" of $1,000. All members receive the publication, decals and a lapel pin.

Formed under the aegis of the USS *Massachusetts* Memorial Committee to replace the former League of Naval Destroyermen, the organization has a port and even a destroyer of its own—USS *Joseph P. Kennedy, Jr.* (DD 850), homeported in Battleship Cove at Fall River, Mass. Plans are being developed for *Kennedy* to house a library and museum for memorabilia of interest to destroyermen.

The organization sponsors exhibits of interest to the entire family and its "homeport" also harbors USS *Massachusetts* (BB 59), USS *Lionfish* (SS 298) and PT Boats, Inc. The area is a treasure chest of nautical artifacts; a sure hit for a family outing.

Anyone interested in joining Tin Can Sailors should write to Executive Director, Tin Can Sailors, Battleship Cove, Fall River, Mass. 02721—*Edward J. Ward*

Ancient Bird

Sir: I thoroughly enjoyed your article on the VS-44 *Sikorsky* flying boat (See "An ancient bird's one-way 'flight' " in the September 1977 All Hands.—Ed.). But you were incorrect in stating that the great clippers are dead.

Last year my brother and I purchased a Short *Solent* Mk 3 seaplane similar to the VS-44 *Sikorsky* flying boat. Our flying boat was owned by the late Howard Hughes. The aircraft is in good shape with only 250 hours on the airframe and engines. It is presently in Richmond, Calif.

Our plans are to restore and modify the plane for oceanographic research. It would be an excellent tool for studying rapidly occurring and short-lived phenomena. I have already done a great deal to the aircraft during my leave periods. During the summer of '78 we plan taking a trip to the plane from Virginia with 20 or so people to paint it and remove parts for rework. Even though the project takes most of my paycheck and free time, I have no regrets. Thanks again for the article on the flying boat.—Randall Grant, AMS2, USN.

• *As your letter indicates, the great clippers are certainly not dead. Perhaps, sadly though, they are no longer the mainstay of commercial aviation—they belong to another era. Good luck on your project.*—Ed.

Another Texas?

Sir: I read with interest your article "USS *Texas* (CGN 39) Commissioning" in the November '77 issue of All Hands. It should be noted, however, that more than one USS *Texas* was decommissioned, and remains in existence.

This questionable honor falls to the third USS *Texas*, noted to have been decommissioned and renamed in 1911. She was, in fact, reclassified as an armored cruiser, and named USS *San Marcos*.

She was finally written off after World War I, I believe. Instead of being scrapped, she was towed out and anchored off the Virginia Capes, then used as a static target by newer battleships of the Atlantic Fleet. The old girl is still there, in shallow water, and now marked as a navigational hazard.—TSgt. Douglas K. Howard, USAF

Reunions

• USS *Arizona*—The weekend before Pearl Harbor Day, Reunion. Contact Bill Nolte, Secretary, USS Arizona Reunion Assn., Hicksville, Ohio 43526.

• USS *LSM 133*—Reunion planned at Lincoln, Ill., *sometime in 1980* for World War II crewmembers. Contact John B. Kinnicutt, 405 Upper Valley Rd., Rochester, N.Y. 14624.

• *Naval Air Transport Service*—Third reunion for all squadrons, active Reserve *sometime in 1979*. Contact Capt. Alvin May Jr. (Ret.), 1015 West South Ave., Independence, Mo. 64050.

• USS *General J. H. McRae* (AP 149)—Reunion planned for those who served during World War II. Contact Paul Ruark, 2204 Brookdale Lane, Birmingham, Ala. 35216.

• USS *Pittsburgh* (CA 72)—Planning reunion in 1978. Contact J. C. Ayers, Wildwood, Ga. 30757.

• *Aviation Ordnancemen*—Reunion in Reno, Nev., 16-18 June. All AOs, active, retired, Navy and Marine welcome. Contact Tom Robins, 729 Buddlawn Way, Campbell, Calif. 95008.

• *302nd Seabee Battalion*—31st annual reunion at Muscatine, Iowa, 13-16 July. Contact Calvin T. Rowe, 1515 Mulberry St., Muscatine, Iowa 52761.

• USS *ABSD-1*—7th annual reunion 28-30 July in San Diego, Calif. Contact C. E. Patterson Jr., 10226 Inwood Dr., Houston, Tex. 77042.

• USS *Thorn* (DD 647)—Reunion planned for fall of 1978. Contact Kaj Swenson, 2190 Allwood Dr., Bethlehem, Pa. 18018.

• USS *Savannah* (CL 42)—9th annual reunion in mid-1978 at Philadelphia, Pa. Contact Lt. Murray C. Flanders (Ret.), 417 West Vista Court, Mobile, Ala. 36609.

• USS *Henrico* (APA 45)—Reunion for crew serving in the 1940s on October 20-21. Contact Jim Etter, 119 E. 20th, Wellington, Kan. 67152.

• USS *Benner* (DD 807)—Reunion in July. Contact John Hile, 401 Christopher Ave., Apt. 33, Gaithersburg, Md. 20760.

• USS *Wasp* (CV 7)—Reunion for crew and squadrons who served from 1939 to 1942 sinking. Families invited. At Seattle, Wash., 14-16 July. Contact Larry Chute, 1330 Nile Dr., Corpus Christi, Tex. 78412.

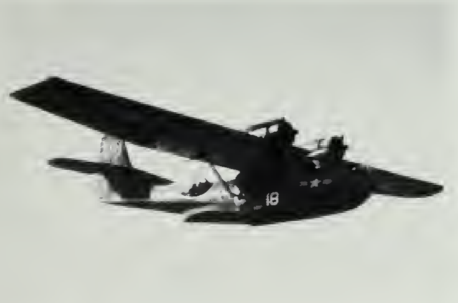
• *LST 1141*—Reunion near Pasadena, Calif., 28-30 July. Contact E. H. Sallee, Bowling Green, Mo. 63334.

• USS *Ranger* (CV 4)—12th annual reunion in New Orleans, La., on 11 and 12 August. Contact Ralph Koberstein, 55 Magazine St., Cambridge, Mass. 02139.

• USS *Seal* (SS 183)—Reunion in Norfolk, Va., 2-6 August. Contact Irvin Hill, 449 Prospect st., Plantsville, Conn. 06479.

Stern Shots

The Navy has always been proud of its past as it moves into the future. Naval aviation vividly illustrates this point. Take a look at naval aviation's yesterdays and recall the names of these aircraft.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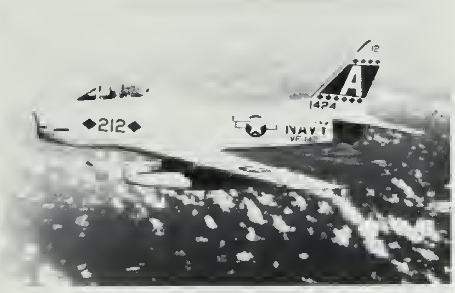

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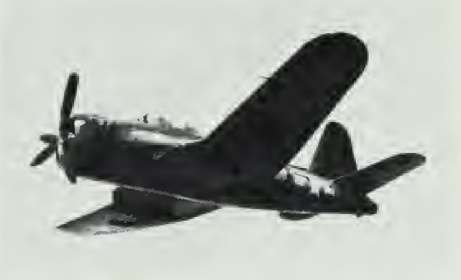
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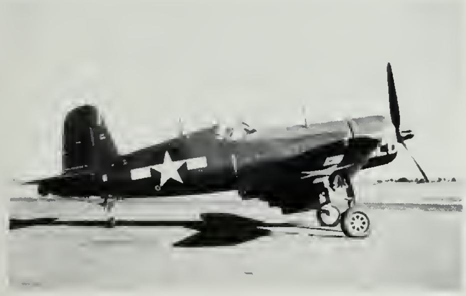
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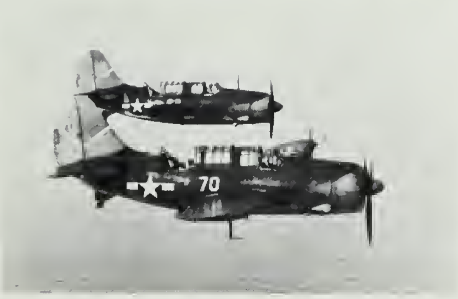

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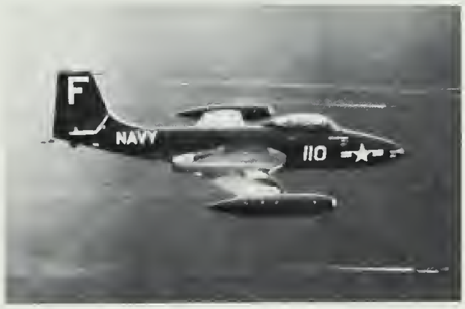

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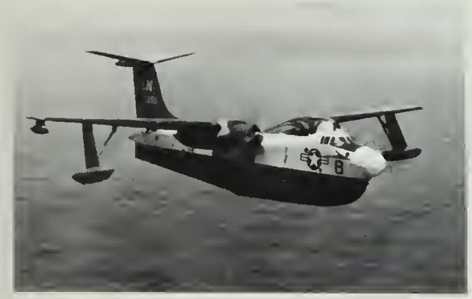
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Answers: A – PBY Catalina; B – FJ-3 Fury; C – FR-1 Fireball; D – F4U Corsair; E – SB2C Helldivers; F – F2H-2 Banshee; G – P5M-2 Marlin

Navy Artist

Arthur E. Beaumont 1890-1978

ALL HANDS

MAY 1978

TRIDENT

BUILDING A BASE-
SAFEGUARDING
THE ENVIRONMENT
PAGE 20

359.05
A416

President Jimmy Carter and Chief of Naval Operations Admiral James L. Holloway III, at sea aboard USS Dwight D. Eisenhower *(CVN 69), salute naval units passing in review. Photo by Dave Wilson.*

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ALL HANDS

MAGAZINE OF THE U.S. NAVY — 55th YEAR OF PUBLICATION
MAY 1978 NUMBER 736

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Cover

The Navy's newest base is taking shape in the Pacific Northwest. Naval Submarine Base, Bangor, Wash. – present and future home of submarines, sailors, school children and white-tailed deer – is the Navy's answer to safeguarding the environment. (Photos by JO1 Jerry Atchison, except aerials by Harold E. Browne.)

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Currents

COLA and Housing Allowances Modified for Junior Enlisteds

● As a result of a recent policy decision by the Department of Defense, junior enlisted personnel E-1 through E-4 (two years of service or less) assigned to ships homeported overseas or shore-based overseas became eligible March 1 for full cost of living allowance (COLA) and housing allowances if their dependents maintain a residence in the vicinity of the homeport or overseas duty assignment. This decision eliminates a significant inequity in entitlements between junior and senior members stationed overseas. Before March 1, those junior enlisted personnel on shore duty could receive housing and COLA at the "without dependents" rate on their own behalf if they were not furnished government quarters or subsistence, while junior personnel on ships homeported overseas received no COLA or housing allowance. Both categories are now eligible to receive housing and COLA at the "with dependents" rate. For personnel stationed overseas, the change gives junior enlisted personnel the same entitlement to housing and cost of living allowances as those with command-sponsored dependents. This policy change was promulgated by Per Diem Travel and Transportation Allowance Committee message DTG 011615Z MAR 78, addressed to Navy activities included in AIG 111, as an advance change to the Joint Travel Regulations (JTR). JTR, Volume 1, contains the rules and lists the locations eligible for payment of these allowances. Members assigned to shore or afloat commands overseas who are eligible for this new entitlement should contact their disbursing office to complete forms.

Recruit Training Shortened Nine Days

● Navy boot camp, now eight weeks long, will be shortened to six weeks and five days, effective Oct. 1, 1978. The cut in length of basic training was ordered by the Department of Defense and affects all the armed services. Early plans call for the elimination of ship's work week, also called service week, as one way to accomplish the directed reduction. Mess cooking duties which previously were performed by recruits will be privately contracted. Some adjustment of the curriculum also is anticipated. Since 1965, length of basic training has varied between seven and 11 weeks. The most recent change, effective Feb. 1, 1977, shortened the training from nine to eight weeks. The Marine Corps is planning to reduce its basic training course from 11 to nine weeks and the Army is cutting two days from its seven-week schedule. The Air Force six-week basic training schedule will remain unchanged.

Jumper Style Uniform Guidance Provided

● Guidance for the wearing of the jumper-style uniform has been released by the Bureau of Naval Personnel for all personnel taking part in the year-long uniform evaluation and for other E1-E4 personnel who wish to purchase service dress blue jumper style uniforms. The evaluation of new material for the jumper style uniforms by designated fleet units was ordered last year and delivery of the uniforms began this month. E1-E4 personnel meeting the eligibility criteria and assigned to fleet units selected by the fleet commanders in chief to participate in the evaluation will be issued the necessary uniforms at no cost. Other E1-E4 personnel assigned to sea duty will be permitted to purchase and wear the service dress blue jumper style uniforms. Personnel assigned to shore installations and reservists will be authorized to purchase and wear the uniform in August 1978, as more supplies become available. For those participating in the evaluation, jumper uniforms will be substituted for present uniforms in accordance with the following table:

Present:	**Jumper Style:**
Service Dress Blue	Service Dress Blue Jumper
Winter Blue	Winter Blue Jumper
Winter Working Blue	Winter Working Blue Jumper
Service Dress White, Summer White (Tropical White Long), Summer Blue	Service Dress White Jumper

Further details are available in BuPers Notice 1020 of 22 March 1978 and will be included in *U.S. Navy Uniform Regulations, 1978*, planned for distribution in July.

DoD Five-Year Shipbuilding Plan Announced

● The Department of Defense FY 79 naval shipbuilding program delivered to Congress last month calls for construction of 70 new ships and modernization of 13 others over the next five years. The FY 78 shipbuilding plan requested 157 new ships and 21 conversions and modernizations during the 1978-82 period. Among the ships to be added to the fleet under the new DoD proposal are six new *Trident*-class submarines and a conventionally powered aircraft carrier. Ships to receive major service life extension are two *Forrestal*-class conventional carriers. The major modernization will keep the ships in the force until the year 2000. Other proposals in the FY 79-83 shipbuilding plan include:

– Continuation of the SSN 688 nuclear attack submarine construction program at a rate of one per year.
– Construction of a nuclear-powered cruiser (CGN 42) in 1983.
– Construction of seven DDG 47-class destroyers.
– Modernization of 10 DDG 2-class destroyers.
– Construction of 26 FFG 7-class frigates.
– Construction of two LSD 41-class dock landing ships.
– Construction of one destroyer tender.
– Construction of five mine warfare ships.
– Construction of 16 auxiliary ships and modernization of one other.

Projections included in the five-year plan show the fleet increasing from 466 ships at the end of FY 78 to more than 525 ships at the end of FY 84 if the shipbuilding plan is adopted.

Leaders can be made

Editor's note: A recent study by the Chief of Naval Personnel has knocked the old saying "Leaders are born and not made" right out the window. BuPers researchers have determined that the skills of superior leaders and managers can be identified and effectively taught to most Navy people—from seaman to admiral. In response to these findings, a new program called Leadership and Management Education and Training (LMET) is being developed to do just that. To learn more about the program, ALL HANDS talked with Commander D. P. French, BuPers LMET Project Director.

Q: *Commander French, why did the Navy decide research in leadership and management was necessary?*

A: About five or six years ago, fleet commanders began reporting they were unhappy with the level of leadership and management ability demonstrated by some of their people. Various fleet retention conferences—in both fleets—also addressed the need for improved leadership and management training. In recent years, the urgency for comprehensive leadership research has been underscored by newly emerging personnel problems—like rising desertion and attrition rates.

Q: *Will leadership training like LMET solve these problems?*

A: No. The solutions to these problems lie at all levels in the chain of command, are complex and not likely to be solved by a single program. We do think, though, that the LMET program is an essential part of the solution because our goal is to see better leadership and management in the Navy.

Q: *What's behind this effort by BuPers?*

A: Leadership and management development of both officers and enlisteds has never been a centralized subject in the Navy. We've had many short courses over the years that have dealt with leadership and management but they've never endured. Nor have they been comprehensive or footed in valid research. Instead, they've been a collection of knowledge courses that have told people *about* leadership and management but not *how* it works.

Many of these courses are homegrown, developed by concerned supervisors and commanders trying to deal with the need for leadership and management training. Some have spent their own money, used their own resources and shorted themselves here and there in order to address the problem. That's not only wasteful, it's inappropriate because the subject is much too complex.

That's the same as suggesting every command figure out for itself the best way to fight fires. They would have to design their own firefighting equipment, training and procedures. Each command's approach would be different and, clearly, that makes no sense.

Our efforts, then, represent a centralized, systematic approach to leadership and management development.

Q: *Why must the Navy now change the leadership development methods they've used for years?*

A: For 200 years, the Navy has been using an apprenticeship system to develop people to do their jobs. It's a system we inherited from the British navy when we started our own Navy. We would take midshipmen aboard sailing ships at the age of 14 or so and they would spend several years just watching more qualified officers and petty officers. They either mastered the skills or they weren't commissioned.

The Navy can no longer afford to develop its leaders and managers through on-the-job training like this because:

The Navy of today is not as forgiving of the learner as it once was. Errors in learning are more costly. And it doesn't make sense to make young sailors we've recruited at great expense serve as training aids for budding young leaders.

The operating time of fleet units is at a premium and it has to be used to refine peoples' abilities that cannot be simulated ashore in other ways. The people reporting to key billets in the chain of command need to be able to deal effectively with complex leadership situations from the first day on the job.

There are fewer people in the Navy than there were before. Equipment is far more sophisticated and the total years of experience available in a work center are far less. Emulating your supervisors is a good way to learn leadership skills. But there are not as many of them and they don't all have the longevity they once had.

Some people can't learn leadership and management skills through on-the-job training. They need the benefit of some minimal form of formal education like LMET will offer.

Q: *One result of your research is the identification of 27 "leadership competencies"—skills used in varying degrees by all the Navy's superior managers and leaders. Why do you think they are skills that can be taught to most people in the Navy and how do you intend doing so?*

A: Actually, the leadership skills we identified are basic enough to be used by everyone on the job, be they seamen or admirals! Application of these skills will, of course, differ from job to job and up and down the chain of command, but they're still the same basic leadership skills.

In order to teach these skills when they're most needed, we've identified 15 levels of leadership and management across the chain of command for officers and enlisteds. We are presently designing LMET courses for these levels that will tailor the skills of personnel to the unique requirements of the billet to which they are ordered, whether petty officer, department head or commanding officer.

The LMET course we are presently testing on the junior petty officer level, for example, includes instructional time to teach the skills and then includes practice in applying these skills in situations sailors are likely to encounter on the job.

The courses will be team-taught by two Navy instructors. Team teaching is uncommon in Navy instruction but particularly suited to the teaching of leadership skills vice technical knowledge. In teaching these skills, the instructors interact with the students to ensure learning takes place. This means teaching may be different with two different people or from class to class.

We've still got a long way to go in refining the teaching techniques, but initial results from our test courses have been very promising. People are learning leadership and management skills and, of greater importance, learning how to use these skills effectively on the job.

Leaders can be made

Q: *Leadership, Management Training (LMT) courses are presently offered at various Navy activities. How does the proposed LMET program differ from LMT? What will become of existing leadership courses?*

A: The present LMT courses differ in a number of ways. First, they teach mostly leadership and management general knowledge. LMET stresses skills, skills the effective managers use every day.

Another difference is that the present LMT courses can't handle the number of people—the whole Navy—we intend teaching at LMET courses. They deal only with senior petty officers and junior officers and then only on a returnable quota basis rather than on a (rotation) pipeline basis. Because of this, only about five percent of the people in the Navy can receive LMT training each year.

We have built LMET out of much of what's good about the Navy's present leadership programs. People from LMT and the chief petty officer's course taught at COMNAVAIRLANT, for example, have all been involved in the research and design of LMET.

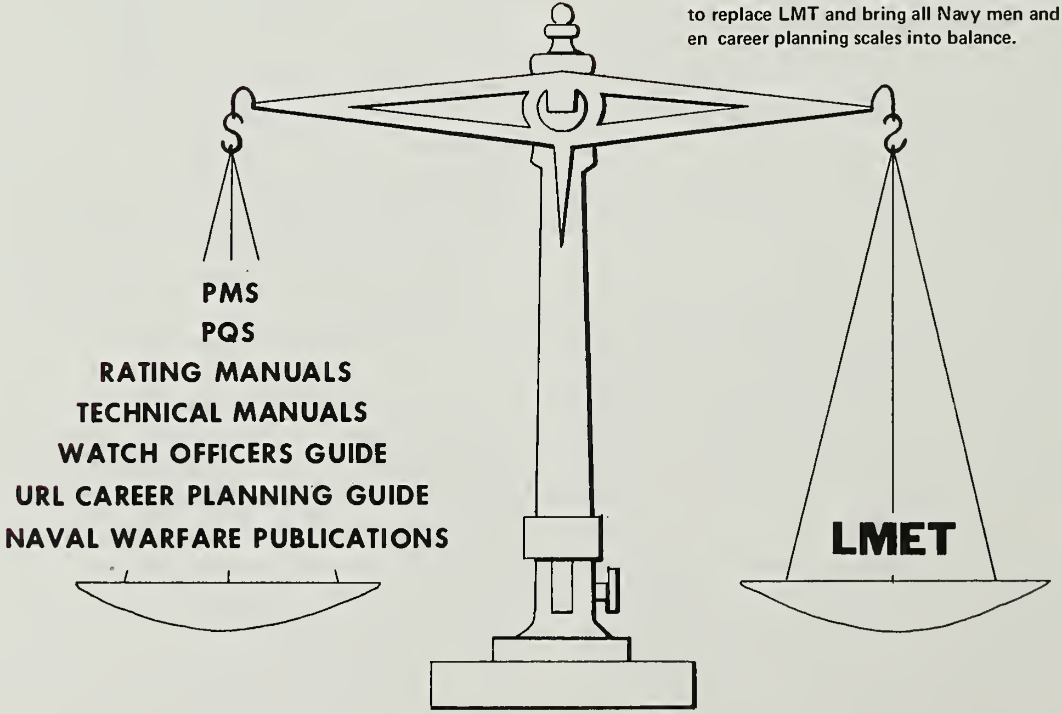
Q: *Once the LMET course is operational, who will be attending the course and when might they expect to go?*

A: We are pursuing resources to support LMET courses in FY 80 for all line officers and petty officers enroute to the fleet. We are centering our initial training efforts on those rotating from shore to sea because the operating forces are the cutting edge of the Navy.

All the prospective division officers, department heads, and commanding and executive officers who go through technical training on their way to the fleet will receive LMET training. Also, with some schools located on the coast, all petty officers E-6 and above would receive training enroute to sea. We hope someday to offer the course to all people in the Navy, but this describes our initial effort.

CAREER PLANNING

The Navy presently has a variety of systematic, centralized methods of training people in operational and technical skills. But her single method of providing leadership and management training, LMT, has been available to only about five percent of the Navy each year. Leadership and Management Education and Training (LMET) is being developed to replace LMT and bring all Navy men and women career planning scales into balance.



Q: *Why do you feel it important to train all Navy people in leadership and management skills instead of training only selected people?*

A: We know from past experience that if you train just some of the people and send them into a unit, it doesn't usually work. They're the only ones with anything different or new so they're thwarted by everyone else who just don't know what the new arrivals are talking about.

Part of the problem is lack of a common approach. So unless you give LMET an opportunity to work by having everyone in a unit trained, that training probably isn't going to be worth it.

Because of that need for a common approach and in the event we are unable to come up initially with the full resources to support LMET, we could ask the fleet commanders in chief to specify which commands they wanted LMET-trained people to go to and which not. This would mean that every billet in the leadership and management chain of command at a particular command would be manned by LMET-trained people.

Q: *In certain cases, you've indicated LMET training will be integrated into existing technical training courses instead of being offered separately. Aren't leadership skills different from technical skills?*

A: You cannot separate technical and leadership skills in practice as easily as you can on paper or when you're talking about it. For example, there is a technical skill involved in repairing electronic equipment. But managing a repair force, motivating that repair force to repair that electronic equipment is a leadership skill.

In the smaller Navy of today, we can't afford to have people doing only part of their jobs. We must have the best level of effectiveness we can get out of everyone. Petty officers who can only repair equipment and are unable to undertake any of their petty officer leadership responsibilities are going to be less and less useful to the Navy.

Q: *You mentioned a common approach for leadership and management development. Why is this important?*

A: Over the years, we've had technical operational programs like PQS, practical factors and the like. But leadership and management requirements have always been general and vague, almost emotional. They're referred to in your enlistment contract and your promotion certificate. They're not wrong, it's just that they're not specific.

A lot of petty officers told us they don't disagree with them, they just don't know what they mean. What LMET is trying to do is specify what the Navy expects you to be able to do in terms of leadership and management skills—come up with a common language for the first time.

This common language will make it easier to talk about leadership and management. It will make it easier to communicate in terms of how you're doing or not doing. It should greatly help supervisors in leading and directing their subordinates and it applies right on up the chain of command.

In the long run, we should be able to make the evaluation system much more explicit and useful. It tends to break down the distinction between officer and enlisted as regards the subject area because the same skills are used on all levels.

Q: *People have different personalities. Leaders operate differently. How can LMET make better leaders and managers of everyone?*

A: The leadership skills we've identified are fundamental enough. They can be applied using a wide variety of styles by a wide variety of people with a wide variety of personalities. For example, you can set goals effectively for your people (one of the leadership skills) and yet have an inherently cold personality. You can be trained to be a good counselor despite an authoritarian manner. People have unique personalities. They can be taught the leadership skills they learn in LMET and apply them with their own personality.

We have no intention of saying that there's only one way of doing something. Rather, "It is important to set goals and in order to set goals you must understand the characteristics of good goals."

The truth is, under the apprenticeship method I mentioned earlier, we developed some excellent leaders and managers on the job. We came up with very effective people—but not enough of them.

So what we want to do with LMET is to accelerate people's experience, to concentrate in a formal training setting, the opportunity to learn the leadership skills that took others years of experience to develop.

Social change is occurring today faster than ever. Leadership that we use today has got to work on the people we've got in the Navy today. We can't use the leadership that was working on people 20 years ago or the people we might have 20 years from now. LMET will help us stay abreast of that change. ⚓

A NEW USO for a new

BY JO2 DAVIDA MATTHEWS

A home away from home; a friend when you needed one. That's what the United Services Organization, better known as USO, was to World War II servicemen and women. And during the Korean and Vietnam conflicts, our old friend was back, providing a place where a Navy visitor could get a cup of coffee and a smile, and forget the war for a time.

But now it's peacetime. Where does the USO, an organization with war-oriented beginnings, stand?

"Our primary mission remains unchanged," says General Michael S. Davison (Ret.), former U. S. Army Europe commander and now president of the USO. "It has always been and remains today the extension of a civilian helping hand to the millions of young men and women who serve our country at home and abroad. All that has changed is our methods in fulfilling that mission."

The United Service Organization for National Defense (later shortened to USO) was born early in 1941. Eighteen civic organizations, including Salvation Army, YMCA, YWCA, National Catholic Community Service and National Jewish Welfare Board, recognized the need for a single united effort to provide morale-supporting services to military men and women.

With Pearl Harbor and the hectic pace of World War II—thousands of young men and women answered their country's call and joined the armed forces. USO was ready to act as a buffer for the transition from civilian to military life.

USO volunteers served where the military served, often exposing

Miss Black America, Claire Ford, sings at a recent USO show. (Photo by PH1 Terry Mitchell.)

military era

themselves to the same dangers. At the peak of WW II, there were 3,035 USO operations scattered throughout the world. Camp shows gave more than 438,000 performances to over 213 million service people. Americans in uniform boogie-woogied with the Andrews Sisters, swayed with Bing Crosby, and laughed at the antics of Bob Hope. These USO entertainers, and hundreds of others, brought a breath of home to war-weary men and women.

People at home said "Yes, we care" by donating more than $236 million to USO during the war. But at that war's end, many felt USO had outlived its usefulness. In 1947, it was disbanded.

USO was soon missed, however, and another organization, Associated Services for the Armed Forces (ASAF), was created in 1950 to fill the gap. But ASAF was short-lived. A few months later, Americans were again at war and a reactivated USO marched to Korea.

Again, as before, when the fighting stopped, so did the financial backing. By 1962, USO was barely surviving. Then, stepped-up hostilities in Vietnam brought increased awareness and support.

Twenty-two USO facilities were opened in Vietnam alone over the next few years. The monthly door count at those centers averaged 500,000 by 1968 and went as high as 750,000 by 1973. Camp shows were revived and virtually every famous entertainer in the states traveled under the USO banner, performing in combat zones and aboard ships on the line.

But now the fighting is over and we've entered the era of an All-Volunteer Force. Many Americans do not feel the same obligation they felt for a drafted force. USO faces one of its toughest challenges to date.

"We feel the morale of an All-Volunteer Force is just as important to the readiness of that force as was the morale of a drafted force. If anything, it is more important. If you want to keep quality people in the service, you have to keep them happy." GEN Davison explains.

"The military is a whole new ball game now, and we've had to change with it," he said. "Sixty percent of the people in the services are below the age of 21 and half of them are married. So we've shifted the emphasis on many of our programs to deal with the problems these young families face.

"For example, in one of our fairly new projects called 'Outreach' we offer such recreational, educational and self-help programs as 'How to find Jobs' seminars, budget management classes, or marriage and child abuse counseling." GEN Davison explained.

"Community involvement is another important function in the new USO," he continued. "No matter where a serviceman or woman and their families are stationed, or how long they live in one spot, they are still strangers until they become a part of that community. Once you get that involvement, the family just has to be happier with their situation," he said. "Programs like being pals with one-parent children, or working with senior citizens or cleaning up a park are the things that benefit both the community and service people. We feel it's the USO that brings the two together."

The backbone of USO is the over 75,000 volunteers who keep its 23 permanent facilities and local affiliates, airport centers and information desks working. "It's our volunteers who make it possible to return, in direct services, 80 cents of every dollar we receive. Not many national agencies can make that claim," GEN Davison said.

Nearly seven million military men and women and their families took advantage of worldwide USO services last year.

Rocco R. Perrotta, executive director for Mediterranean Fleet operations and USO Naples, estimates that they aid more than 60,000 Sixth Fleet sailors each month.

On the other side of the world—at the USO lounge at Chicago's O'Hare Field—Dorothy Conley pours what must be the thirtieth cup of coffee and, with a smile, hands it to a weary serviceman. A few thousand miles away, Lorna Tagg, director of the USO club in Beeville, Tex., greets another visitor, one of many regulars from nearby NAS Chase Field, who has come to consider the USO as a second home.

Through USO, these people and thousands more like them, will continue to lend a helping hand as long as the people of America, recognizing their responsibilities to men and women in uniform, make such services possible.

General Davison summed it up when he said "The young person coming into the service today usually enlists for a self-serving reason, like an educational opportunity. But it has been our experience that after a time, a subtle transition takes place, particularly to those stationed overseas. The majority begin to see themselves as doing something for their country. And like everyone who does a job well, they feel a need to be thanked.

"I see the USO as an expression of appreciation—a physical, tangible thank you—from the people and the country they are serving." ⚓

CAPT MC

The Captain's 'Step Ahead' Attitude

STORY AND PHOTOS BY
JO1 RICH SYLVESTER

Command at sea is demanding, yet many a ship's captain bemoans the day his vessel enters drydock. Overhaul creates some unusual situations and challenges for both captain and crew.

Aboard USS *Reeves* (CG 24), undergoing extensive overhaul at Pearl Harbor Naval Shipyard, those challenges are met head-on by her skipper, Captain Ming E. Chang. According to CAPT Chang, any operation can go smoothly as long as one ". . . keeps a step ahead of events.

"Those bluejackets never cease to amaze me," CAPT Chang said, as he looked out the window of his two-room trailer office perched at the rim of the drydock, overlooking *Reeves* sitting high and dry in the dock's huge belly. "If given something to work for, something to achieve and be proud of, they will work so hard," he said.

"For example," Chang explained, "from the beginning of our last WestPac deployment, I talked often with the crewmembers about what the upcoming operation would be like and what our overall objectives were. Because they understood what had to be done and why, they did a super job."

Reeves' demanding last cruise schedule included operations with Australian, Canadian, Japanese and Korean Navy units, and participation in 10 major fleet exercises. The ship's combat information center conducted 950 fighter aircraft air-to-air intercepts—an unprecedented number for a cruiser in peacetime, according to the executive officer, Commander Stephen Clarey.

In addition, after sailing to ports such as Manila, Yokosuka, Keelung and Pusan, the ship compiled a virtually incident-free visit record.

"It all amounts to the crew's being prepared. We produced an informative video tape for them before each port visit. The men knew what they could and couldn't do before they ever went on liberty. That was reflected in their behavior," the captain said.

The captain's "step ahead" attitude is his major tactic in any dealings with his crew, particularly when preparing them for the year-long yard period. "It's important to give the men a sense of being in on the planning as well as a sense of achievement," he explained.

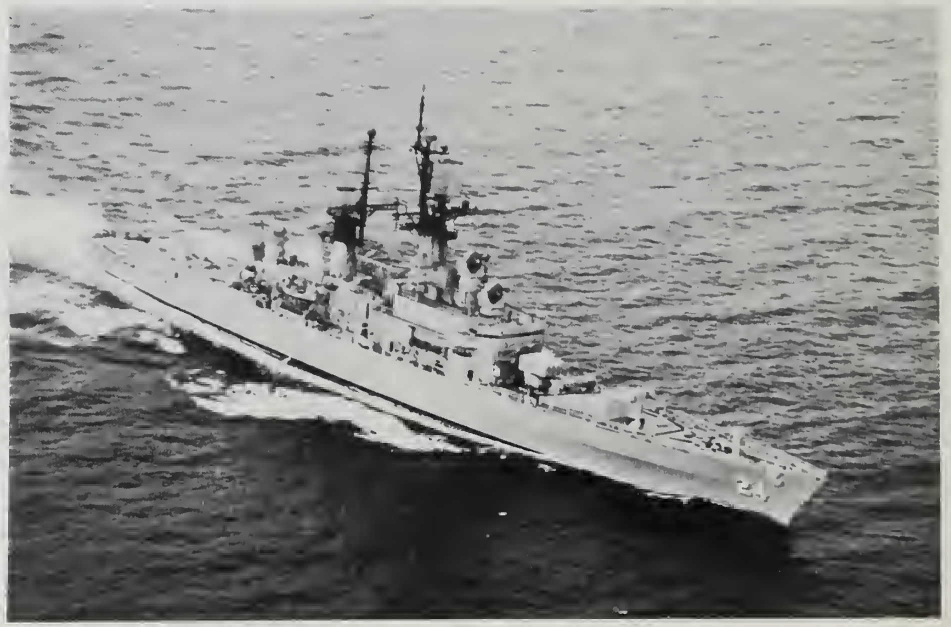
"It was a matter of changing their attitude from one in tune with operational readiness to one keyed for the yard. The crew understands the importance of an overhaul. They realize what the end product will be and how it will be managed."

Reeves' overhaul includes installing *Harpoon* and upgrading the engineering and guided missile fire control systems. In addition, the captain estimates that his crew will spend over 400,000 man-hours overhauling equipment not contracted to the shipyard. "That's one reason why I had my office set up in this trailer near the ship. I try to make myself as readily available as possible," he said.

Crewmembers describe their energetic captain as "always on the go," and likely to "pop in for a chat" anywhere at any time. CDR Clarey said that CAPT Chang "doesn't simply make himself available to subordinates, he goes after them."

The rapport between captain and crew is reflected in *Reeves'* retention rate. Within three months after assuming command, the first term retention rate had leaped to 55 percent. By the following quarter it stood at 88 percent.

The captain tries to meet with each



Bottom: USS Reeves *(CG 24) at sea before yard period.*

Captain Ming E. Chang is believed to be the first naturalized American to command a U.S. warship in recent times (see ALL HANDS, July 1973).

His first contact with the Navy came when he was a small boy in Shanghai. He would sit for hours on the bank of the Whangpoo River and watch American cruisers maneuver in and out of the crowded channel. His father was a petty officer aboard one of those vessels and CAPT Chang was determined that someday he, too, would be a sailor.

That dream came true beyond all his youthful expectations. *Reeves* is the second ship CAPT Chang has commanded; USS *Rathburne* (FF 1057) was his first.

In the early days of his career, CAPT Chang found that he was excluded from certain fields and that he couldn't obtain a security clearance because he was foreign-born. "I couldn't get a cryptology clearance and, in fact, it took a long time to get a background investigation completed," the captain said. "There's a part of my life that they can't investigate—it's back in China."

Gradually, changes in the laws governing naturalized citizens permitted CAPT Chang to assume command of a warship and obtain the rank of captain. He is extremely proud that his son, Danny, is attending the Naval Academy—a place once denied him.

"I'm a firm believer that if you're the best qualified to get the job, you'll get it no matter where, who, or what you are." ⚓

crewmember as soon as he reports aboard, again about five months before transfer or separation, and a third time just before he leaves.

"I find out what kind of orders the man desires and try to get those orders in writing," he said. "Then, when it's time for him to transfer, he will more likely get what he wants. Or if he thinks he wants to get out, we can sometimes show him a set of orders that may change his mind. It works!"

Chang encourages all of *Reeves'* officers and senior petty officers to do their utmost to retain on board as many high quality sailors as possible.

"Most of what we do in the way of leadership simply shows the sailors that the Navy is really interested in them," CAPT Chang said. "For example, in Subic Bay the crew had access to a hotline direct to Washington so anyone could talk to the detailers. When we returned to Pearl Harbor, I found out there wasn't one here for fleet sailors, so I had one put in my office for our crewmembers.

"I couldn't be more proud of the way my crew has responded to this yard period. I feel that if I give them 100 percent, I can't help but get 100 percent back!"

Bearings

Ounce of Prevention

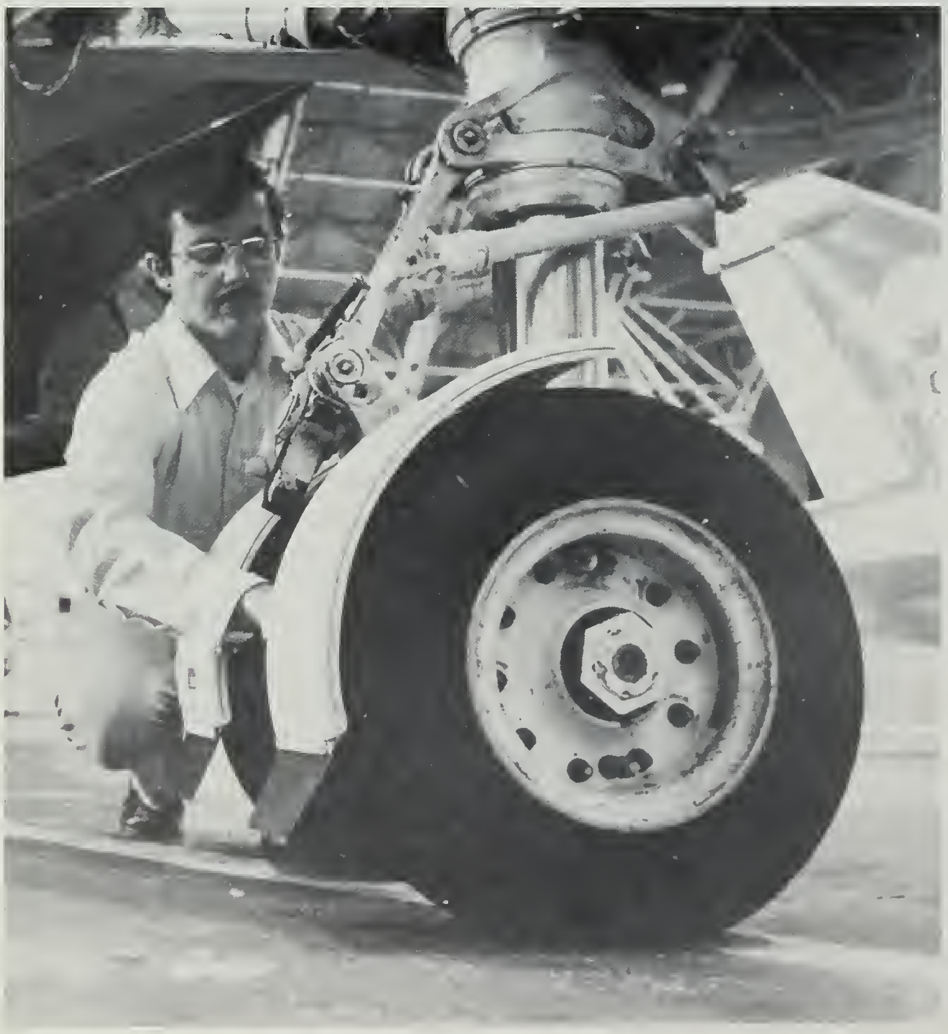
Don't look now but the F–14 of tomorrow may be wearing something new—a nosewheel fender no less. The idea isn't to make the plane look more dressy but, rather, to cut down on the amount of FOD (foreign object debris) which the plane's nosewheel is suspected of picking up.

A test pilot and a project engineer at the Naval Air Test Center (NATC), Patuxent River, Md., are working on the idea. It's so simple that it has been equated by some to other simple but dramatic ideas like the paperclip and the hula hoop.

It has cost NATC only $3,500 to design and build the first set of fenders. They would be much cheaper, of course, if manufactured in quantity.

Commander Jack Ready, a Navy test pilot, originated the idea of fenders for the aircraft's nosewheels. In August 1977 he was assigned to NATC as the chief test pilot for Strike Aircraft Test Directorate, and one of his first actions was to find someone to evaluate his fender idea.

That someone was project engineer Gary Rasponi, who was excited by the simplicity of the idea and its potential for saving people, airplanes and money.



NATC had suffered engine FODs in the past on the F–14A. There was a possibility that some of the FOD could have been kicked up by the nosewheels. Manufacturer's tests had already disproved the popular notion that the engines suck high-density items right off the ground. Rasponi felt that the obvious way to document how much FOD, if any, is tossed into the engines from the nosegear was with the little fenders.

His first stop was at the design and fabrication shop of the Technical Support Directorate. Design engineer Rolland Campbell and his crew fashioned a 15-pound set of aluminum fenders that fit easily onto the *Tomcat's* nosegear without any alterations to the aircraft.

To date, Rasponi and CDR Ready have proven that the fenders will not interfere with wheel changes, will not be in the way when the nosegear kneels and will fit smoothly into the wheelwell when the gear is retracted.

All this has been demonstrated on a stationary aircraft. The real test will be to taxi an F–14A through a trash-littered runway. To do this Rasponi is trying to locate a complete F–14A nosegear assembly to transport to Langley Air Force Base in Virginia. Langley has an aircraft landing load and traction facility which can simulate runway conditions. The device might allow him to take high-speed photographs of the fenders in action without risk to an aircraft and crew.

Navy Relief Drive
May 4 – June 6

'Chief' Tower

Senator John Tower of Texas now has another title to add to his list—call him Chief Boatswain's Mate Tower. He was recently initiated into the ranks of chief petty officers after years of climbing up the ladder.

His climb began in 1943. After 33 months of combat in the Pacific during World War II, plus another 32 years in the Naval Reserve, it looked like the ranking Republican on the Senate Armed Services Committee and only enlisted reservist in Congress would always be known as Petty Officer Towers. Then, lo, last year he was selected for chief petty officer.

Still, being the senior senator from Texas didn't carry that much weight, at least as far as CPOs in the Navy and Naval Reserve were concerned. Chief Boatswain's Mate (Selectee) Towers had to be initiated just like any other CPO or he wouldn't be allowed to don "The Hat," no matter what.

Rest assured. The initiation took place at the Naval Air Station, Corpus Christi, Tex., and BMC John Towers survived. Not only that but he acquitted himself of all charges—real or imagined—and demonstrated his proficiency in line-handling and pipe calls. Before the event had run its course, Sen. John Towers was welcomed into the ranks of the Navy's chief petty officers—thus ending his 35-year quest for "The Hat."

Congratulatory messages from Secretary of the Navy W. Graham Claytor Jr., CNO Admiral James L. Holloway III and Master Chief Petty Officer of the Navy R. J. Walker were read at the ceremony. Admiral Holloway's message noted, "The esteem with which chief petty officers are regarded and the importance of their unique place in our Navy have not diminished over the years. The Hat is still a hard-earned symbol of knowledge, judgment and proven experience. The legend and lore of the Navy chief petty officer gain a new chapter as you are formally welcomed."

—*JO1 Curt Voss*

A Booming Find

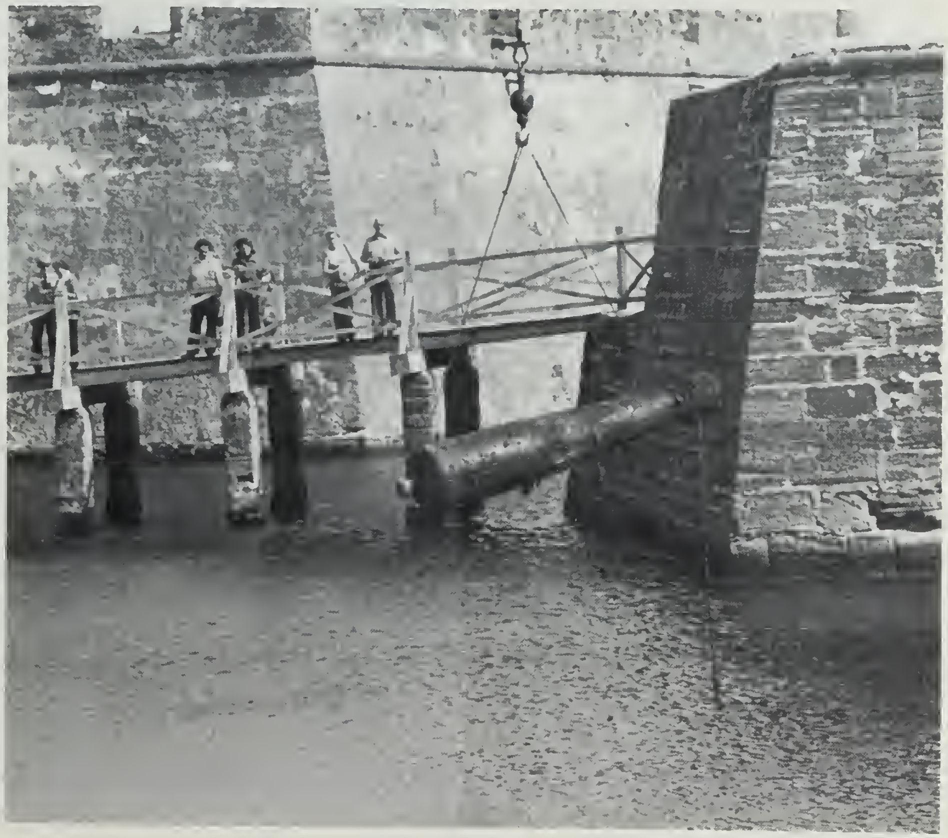
What would you do with a 7,320-pound Civil War cannon submerged in the drink? Well, if you have thoughts of preserving it, you'll leave it right there—at least for the time being.

Such a cannon, all 10 feet, eight inches of it, rests today at the bottom of the Castillo de San Marcos moat in St. Augustine, Fla. But that's not where it was found.

Seems the cannon was fished out of the basin at the Naval Station, Mayport during routine dredging operations. "It was just hanging out of the bucket," said dredge employee Joe McConkey. "You could see part of it through the mud."

Local historians were immediately interested in the find and the Navy didn't lose much time in turning it over to them for preservation. Transported to St. Augustine, the Civil War piece was returned to the element which has been its home for the last 116 years or so.

An historian for the National Park Service at St. Augustine, Luis Arana, inspected the piece when it was first fished out of the basin and identified it as U.S.-made, somewhere between 1836 and 1865. He wouldn't speculate on whether it belonged to Union or



Bearings

Confederate forces. A fortification named Ft. Steele was built at the Mayport location by the Confederates in 1861 and was captured a year later by Union forces.

One could guess, however, that the cannon was last in Confederate hands. When it saw the light of day last fall, it had a cannonball wedged in its mouth—spiking guns is usually accomplished by defenders just before they're overrun by the victors. On the other hand, at the end of a war, victors usually haul the guns off to museums or parks. A spitting image of this latest find is on display in the plaza of the "nation's oldest city."

Meantime, the newly found piece sits in the moat awaiting the day curators will restore it to its former beauty.

Two-Second Beep

Using about $10 worth of parts, electronics engineer Tom Pigg of Pacific Missile Test Center at Point Mugu, Calif., may have designed a backup aircraft safety system that could save the Navy millions of dollars annually.

An average of 13 Navy pilots each year fail to engage their landing gear before touching down. Some simply forget. Most, however, are operating in high-stress emergency situations where normal procedures are sometimes overlooked. Under stress, the flashing warning light, designed to alert a pilot that his landing gear is up, may go unnoticed.

Discovering a way to avoid such needless mishaps was the goal of four men at the test center's human factors branch. Working with Lieutenant Commander William Maroney and psychologists Alvah Bittner and Ed Holshouser, Pigg designed a circuit which takes the signal from the tense, in-flight environment and repeats it in the control tower. "When the controllers hear a two-second beep," Pigg said, "they request that the pilot lower his landing gear. Clearance to land will not be granted until the aircraft is in the wheels-down configuration."

Although still in the testing phases, the prototype circuit board, which can be easily installed on most aircraft, has performed well. Only one problem has been detected: when pilots must adhere to noise abatement procedures,

Snipes' New Helper

White collars and ties for snipes will probably never be a reality, but Navy scientists have made one job a little easier for them by developing a new method of cleaning ship's boilers and other closed systems without interrupting operations.

The new method is now being tested aboard numerous ships. Existing procedures for cleaning boilers require that they routinely be shut down for mechanical or chemical cleaning. The new technique uses an organic agent which—when added to the feedwater—prevents build-up of deposits in boilers. This procedure greatly increases the time between overhauls.

Use of other organic agents to decontaminate radioactive residues in nuclear-fueled industrial boilers, to clean sludge formations from refrigeration piping, and to remove rust from hard-to-reach bilge areas also are being investigated by scientists.

Old way to clean boilers. (⟶)

the signal sounds prematurely. As part of the procedure, the pilot puts wing flaps in the down position. "This reduces noise by reducing required power," Pigg said, "but it sends a premature warning signal to the tower because landing gear and wing flaps are usually lowered simultaneously."

It is expected that the problem will be solved by the addition of altimeter feedback into the circuit. It would trigger the warning beep only at low altitudes when aircraft are on the approach path.

Pigg said that his design is intended (at least for now) only as a backup, and will augment some of the traditional warning devices such as instrument panel warning lights, communications between pilot and tower, and a visual check by the wheels watch. "If the other warnings fail," Pigg said, "it may prevent a wheels-up landing."

77's Top Controller

Marine Master Sergeant Robert A. Marshall of Marine Corps Air Station, Yuma, Ariz., has been named the Navy's Air Traffic Controller of the Year for 1977 and has received the Vice Admiral Robert B. Pirie Award.

Navy Secretary W. Graham Claytor Jr. cited Marshall's "Superior sustained performance in a demanding environment, including lifesaving actions, which establishes him as an individual of the highest caliber . . . his record exemplifies the highest standards of naval air traffic control. His professional contributions have been significant in enhancing readiness and safety in naval aviation."

Secretary Claytor commended all candidates for the award: Marine Captain A. E. Davis of Marine Air Traffic Control Unit (MATCU) Twenty-Four; Marine Master Sergeant D. C. Baczkowski of MATCS 28; Navy Air Controlman 1st Class J. D. Gordon of Naval Air Station Patuxent River; AC1 B. J. Herman of USS *Midway* (CV 41); ACCS E. Killebrew of NAS Cecil Field; AC2 J. M. Mansperger of NAS Miramar; AC2 J. G. Reed of NAS Kingsville and AC1 M. Thompson of USS *Saratoga* (CV 60).

Dohyo Makes Perfect

All nations revere their sports heroes, but none are idolized more than sumo wrestlers in Japan. Crowds of adoring fans follow these massive athletes wherever they go. Now, American sailors are stepping into the ring of this traditionally Japanese-only sport.

Naval Air Facility (NAF), Misawa, Japan, recently unveiled what is believed to be the first sumo practice ring *(dohyo)* ever built on a U.S. Armed Forces installation.

Captain W. S. Myers, NAF commanding officer, participated in a traditional Shinto ceremony to dedicate the *dohyo*. The practice ring is approximately 4.6 meters in diameter and conforms to standards of the Amateur Sumo Association of Japan.

NAF has its own amateur sumo team comprised entirely of naval personnel. The team is registered with the Amateur Sumo Association of Aomori Prefecture and is being considered for sanctioning by that association.

An exhibition meet followed the dedication. The 12-man NAF team competed with teams from Towada City Agricultural High School, Misawa City Police Force and members of the Aomori Amateur Sumo Association. The NAF Sumo Club swept the matches and was awarded first place in team competition.

Maternity Uniform

For Lieutenant Sarah McCullom, the Navy's approval of a new maternity uniform was timed perfectly. "The day I read of the Navy's decision authorizing the uniform was when I also learned I was pregnant," she said.

LT McCullom is public affairs officer at NAS Jacksonville, Fla. She and her husband, Lieutenant Hugh J. McCullom, a pilot with Anti-Submarine Squadron 24, are expecting their first child this month.

The Navy was the first service to authorize the optional maternity uniform. The action came in response to Navy women's desire to maintain—even while pregnant—a more professional military appearance. In the past, they have had to wear civilian maternity clothes when conventional uniforms no longer fitted.

The new uniforms feature four interchangeable items: white shirt (long or short sleeved), dark blue skirt, slacks and overblouse. By making various combinations, women may form appropriate uniforms for any season.

Most of the major Navy exchanges now carry the new maternity uniforms. The uniform also may be purchased through the Naval Uniform Shop in Brooklyn, N.Y., or through that shop's mail order service. Exchanges not stocking the uniforms have special mail order forms.

Talbot's Citizens

Well over 200 people gathered last Dec. 19 at Valley Forge, Pa., on the 200th anniversary of George Washington's encampment to be sworn in as United States' citizens. For at least two of those people, Mess Specialist Seaman Milton Saracho and Engineman Fireman Brinsley Arthurton, the ceremony had extra special significance—a chance to reaffirm their allegiance to their new country and to the United States Navy.

Both men—Saracho, a former citizen of Uruguay, and Arthurton, formerly a citizen of Guyana—received strong moral support in their quest for citizenship from their shipmates aboard USS *Talbot* (FFG 4) now undergoing overhaul at the Philadelphia Naval Shipyard.

HN Takes Charge

When a truck recently ran a red light outside the Naval Training Center, Orlando, Fla., Hospitalman Phyllis DeBlois had thoughts that the driver was probably drunk. She caught up with the truck after the light changed and followed it to the NTC gate where it stopped.

There she learned from the driver, Dick Bowen, a retired master sergeant and the NTC Librarian, that he had suffered a possible heart attack. Taking charge, HN DeBlois told a center policeman to call an ambulance. Then she helped Bowen out of the truck, made him lie on the ground and assured him that everything was going to be all right.

"I was trying to get him calmed down and in a better position until the ambulance could get there," she said. "I also asked him what medication he had taken."

Bowen's memories of the next minutes were foggy or lost completely. The ambulance rushed him to the hospital—his heart had stopped beating by the time he arrived there. An emergency team revived him. After major treatment and a hospital stay, he was able to go home to convalesce.

Because of HN DeBlois' efforts, she was presented a letter of commendation. She also was honored at a Recruit Graduation Review before 2,600 sailors and their guests.

The incident helped to firm up DeBlois' future plans. Now she really wants to return to college and study to become a nurse—a Navy nurse at that!—*Janet Acres*

It Comes to 34

Thirty-four is more than a hull number—having recently attained her status as a COMNAVSURFLANT Retention Superstar, the Norfolk-based guided missile cruiser USS *Biddle* (CG 34) reenlisted seven of her sailors in February. There were three CPOs and four E-4s through E-6s who received reenlistment bonuses in excess of $34,000. Total obligated time was for 34 years. From right to left: FTG3 John Bost; OS1 William Crocker; DS2 James Lee; HM3 George O'Melia; CAPT A. L. Henry, commanding officer; RADM Robert L. Walters, Commander Cruiser-Destroyer Group EIGHT— to which *Biddle* is attached; HTCS Richard Outland; SKC Robert Andrews; and EWCS Robert Hahn. Petty officers Bost and O'Melia reenlisted in January and OS1 Crocker, who reenlisted in March, are shown in place of BT3 Henry Allshouse, BT2 Darryl Baker and MM3 Raymond Queen, who were on reenlistment leave at the time the photo was taken. By way of coincidence, the command's career counselor, NCCS Wilber G. Richardson, is 34 years old. (Photo by ENS Dale Meyer)

Heart Jog-a-thon

When 20 members of the Armed Forces Staff College in Norfolk recently decided to conduct a "Jog-a-thon" to raise money for the American Heart Association, they didn't expect to fight Mother Nature along the way to raising over $1,500 in pledges and contributions.

The worst rainfall to hit Northern Virginia in 76 years turned volunteer joggers into "soggers" battling rising streams, flooded roads, and heavy highway traffic. Yet, according to team leader Lieutenant Commander Dean Turner, "we decided that as long as our escort vehicles could move, we would run.

Although the "Jog-a-thon" was expected to take 28½ hours, the runners hit the Pentagon's steps five minutes early. "The emphasis wasn't on speed," LCDR Turner said, "We simply intended to raise money for a good cause and get some exercise while ensuring the runners' safety."

Participants, representing all branches of the services, were from the student body, faculty, and staff of the Armed Forces Staff College. Runners were pre-positioned along the route with each man running one 10-mile stretch. They wore reflective vests and carried a baton containing letters from the college commandant, Major General L. Gordon Hill Jr., to each of the five Joint Chiefs of Staff.

Each team member chipped in to pay the team's expenses, thereby donating toward the Heart Fund effort. Escort vehicles used CBs to receive traffic reports and weather advisories from the Virginia State Police along the route.—*JO3 David Hines*

TRIDENT

Building a better base

STORY AND PHOTOS
BY JO1 JERRY ATCHISON

When the Navy decided to build the *Trident* submarine base in the Pacific Northwest, builders faced the challenges of building a base virtually from scratch while protecting the scenic—but fragile—environment of Washington State.

Thanks to the advances made in construction, habitability and design technologies, plus a lot of planning and more planning, Navy builders have met those challenges at the new Naval Submarine Base, Bangor, Wash.

The one-hour, combination ferry boat/car ride from Seattle to Bangor serves to underscore the Navy's challenge. The ferry boat winds among forested islands on its route to Puget Sound's opposite shore. Ahead, rolling fir and cedar forests work their way up to the towering Olympic Mountain Range named for Olympus, mythological home of the gods.

As you drive through this forest, deer graze along the roadside and a mother grouse with her brood moves off the pavement. Your trip takes you out of the forest and past rushing streams renowned for their trout fishing, along glacial inlets that protect fishing boats and nearby small towns.

This, then, is the Navy's double mandate in the Pacific Northwest: build a base that will fully support the Navy's newest strategic deterrent weapon system—*Trident*. However, build and operate that base in such a manner as to guarantee the preservation of the environment.

Nor is this the limit of the Navy's responsibilities in rural Kitsap County. One very big job is to see that the impact of building and operating such a base does not adversely affect the lifestyle of the area's 129,000 residents, residents whose respect for the scenic beauty of their surroundings has grown as, elsewhere, the quality of the environment has diminished.

Construction of the base began in October 1974, at the 6,929-acre site of the former Bangor Annex of the Naval Torpedo Station, Keyport. By the time the base is completed, fully manned and operating as homeport for an anticipated 10 *Trident* submarines, the Navy will have spent about $660 million. It will employ 2,800 civilians and almost 4,800 military personnel. This is all scheduled to be completed by the mid–1980s. By then, the combined annual income of base workers—both civilian and military—is expected to be in excess of $100 million.

The figures point out that this is no small job the Navy faces. Here's how the Navy tackled that job.

Before the first shovel of dirt had been turned at Bangor, it was necessary to prepare an Environmental Impact Statement (EIS). The EIS identified, in effect, everything that could possibly be detrimental to the environment and the steps the Navy would take to protect the environment. After in-depth study and field surveys by Navy experts, reviews by the Defense Department and other federal agencies, public hearings, and still more federal agency reviews and studies, a five-volume EIS was completed. This was filed with, and accepted by, the Council on Environmental Quality—a part of the federal Environmental Protection Agency (EPA).

The Navy was also directed to research and evaluate environmental data beyond the requirements of the EPA in order to demonstrate to federal courts the nature and extent of their commitment at Bangor.

Lieutenant Commander A. L. Wynn is the environmental officer assigned to the staff of Officer in Charge of Construction (OICC) *Trident*. As the Navy's watchdog on the environment, he described some of the other preconstruction environmental tasks.

"The Navy was interested in testing such items as water quality, air quality, noise and marine biology before construction began," he said. "To do this, people were brought in from the Naval Undersea Center in San Diego and the Naval Civil

Engineering Laboratory, Port Hueneme, in addition to contractor personnel."

The result was an environmental monitoring program that established a baseline and told the Navy how things were before construction began. It continues to monitor the environment during construction and will do so after the base becomes operational. From stations scattered about the base, environmental data is fed to a central information center where personnel detect any changes as they

Above: Dawn highlights enlisted housing units under construction and an early arriving construction man. Left: A housing construction site as seen from the air. (By Harold Browne)

occur and take immediate corrective or protective action.

To ensure changes don't occur, Wynn and his staff have prepared environmental specifications that are written into each construction contract.

"We require many positive things from the contractor," he said. "The contractor must submit an environmental protection plan that discusses how he will protect the environment in those categories related to his particular contract. We then have a commitment from him that says what he's going to do to minimize environmental impact throughout the life of his contract.

"Another thing is the actual master planning we did so as to decide where each facility would be located. We tried to take advantage of already-cleared areas in order to minimize the number of trees that had to be cut down. We also wanted to avoid construction in environmentally sensitive areas: marshes and wildlife habitats. We have—as much as possible—left these enclaves untouched where wildlife continues to live."

According to base forest ranger Art Schick, "The result of this master planning has been that only 10 percent of the forest will have been displaced by construction. And that figure will be further reduced because we are eliminating some existing roads, railroad tracks and buildings. That land may be turned back to forest.

"Master planning also allowed us to identify the placement of roads so that they not only allowed access to the facilities, but also ensured none of the 5,000 acres of forest on base is more than one-quarter mile from any given road. In the event of a forest fire, that becomes an important advantage."

In addition, Schick cooperated with the base game warden and experts from the Washington State Department of Game and Fisheries in a survey of types, numbers and range of game found on base. Besides learning that the base serves as home to an amazing cross-section of Pacific Northwest wildlife, some potential problems were identified and solved.

One solution required thinning the deer population on base to a size the environment could support. But this wasn't done with guns. Deer were captured and transferred to nearby Indian Island and other locations where their progress is closely watched.

State game officials also decided that, given the restricted access of the base, it would be an excellent place to release game birds (pheasant and grouse) in order to study their life and habits.

After the Navy had scrutinized the base environment, begun working with Kitsap County officials and completed the base master plan, it was finally time to start building.

The Navy has specified *how* contractors are to build base facilities so as to continue supporting the environment. What they built, are building and will build in the future are examples of this ongoing concern.

The Waterfront

"The most significant environmental protection idea devised was for the piers," Wynn said. "The piers are being placed several hundred feet offshore with access trestles leading out to them. They are being built this way for two primary reasons—both related to marine biology.

"First, if we could get the piers out in deep water, we would be able to bring the subs right up to the piers without being forced to dredge; that could upset marine life.

"The second reason for locating offshore was to permit migrating salmon fingerlings to proceed to sea unhindered. There are four species of salmon common to Hood Canal (upon which the base sits). Two of the four migrate very close to shore all along the reaches of Puget Sound.

"Significant monitoring programs in

Far Left: Hood Canal separates the base from the towering Olympic Mountain Range. Left: Building a new base means changes off-base as well, like this new highway sign going up. Below: Pine trees tower over the new bachelor enlisted quarters.

cooperation with the University of Washington and the Washington State Department of Game and Fisheries were undertaken to ensure that the dredging that did have to be done (for the drydock site) was done so as to minimize impact on salmon. To accomplish this, we had as many as 27 people working full-time to monitor the salmon during their outward migration period.

"All these tests were run not only because we are working to protect the environment but because salmon are also commercially important to the economy of the Pacific Northwest. The results showed the dredging had no impact on the fish."

Wynn also described other waterfront environmental efforts. "We've built a storm water retention facility for each pier. The idea here is to catch even the rainwater that falls on the pier and treat it before returning it to Hood Canal.

"The general use of equipment on a pier means oil and lubrication accumulates on the pier's surface. Therefore, the water that falls on these piers will be collected, pumped to these storm water retention facilities and the oil and other contaminants removed."

Another potential source of pollution will come from the *Trident* submarines to be homeported there. Three steps have been taken to ensure these submarines do not pollute.

First: garbage will be removed from each sub and processed through a grinder before being routed to a sanitary sewage treatment plant.

Second: federal law prohibits the discharge of oil from all ships when in proximity of land. The *Trident* submarine, therefore, will be equipped with a waste oil collection system and tank. The tank will be sized to permit off-loading of oil in port through a piping system. Galley oil waste will be drained to the ship's sanitary tanks.

Third: the submarine will have the ability to operate 24 hours without pumping sanitary tanks within restricted water areas. When in port, the submarine will discharge all these wastes directly into the piping system running from piers to treatment facilities.

Buildings, Grounds and Facilities

Each building on base has been designed so as to blend into the existing terrain. To make sure this was done, Navy planners developed two approaches.

It begins with the architectural review panel. As each project goes through the design stage, Navy engineers and architects review the plans to see how these facilities will fit into their setting. The panel can (and often does) direct that changes be made to improve facilities—their appearance, function and, in the case of housing, livability.

In addition, "all of us around here like trees," Wynn said. "Because of this, and given our responsibility of keeping things looking as natural as possible, you'll notice the trees are left surrounding each structure built."

The areas within which each contractor may cut down trees at a construction site are written right into the contract. The removal of any tree outside the designated area must have approval on a tree-by-tree basis.

As a result, many of Bangor's buildings appear to have been set down in the middle of the forest. One can drive down base roads without realizing that behind the solid wall of trees on each side are buildings and facilities.

"That takes considerable effort to accomplish," Wynn said, "and it also costs more money to build facilities that way."

Of course, some clearing in excess of building sites is required. But those areas that must be cleared during construction are replanted after the job is done. Replanting is directed by an on-base botanist who selects plants, trees and shrubs native to the area. These plants are not only more likely to take root and grow but also more effectively complete the desired blending-in process.

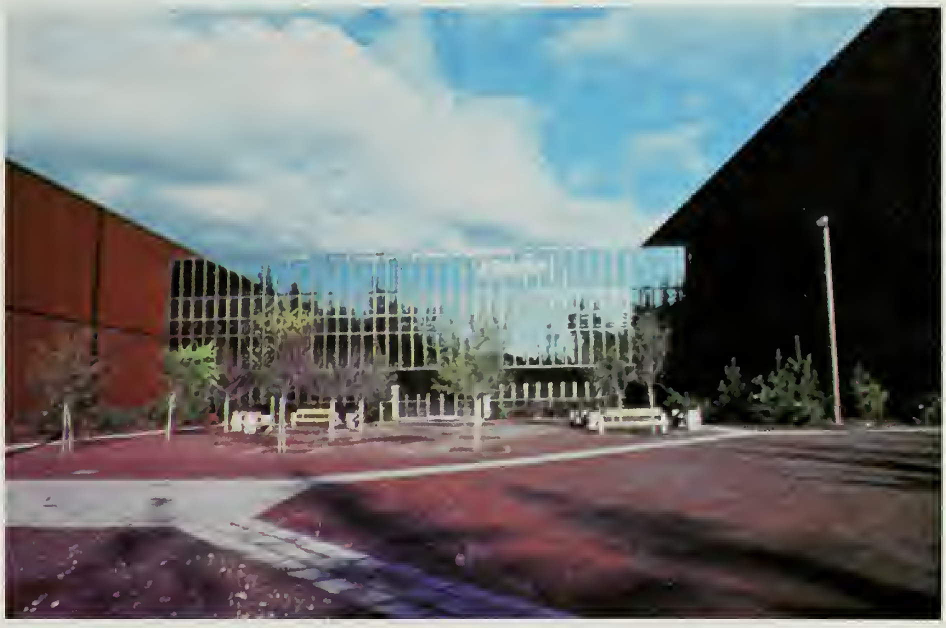
It's apparent the Navy—whenever possible—tries to get many of its environmental plans to do double duty. In case of Bangor's buildings, design combines eye-pleasing elements with energy-conserving materials.

Take the *Trident* Training Facility—largest building on base. The building is constructed of oxidized steel, solar reflective glass and formed concrete. The oxidized steel is designed to naturally "rust" over a period of time. The dark brown rust, besides blending the building with its surroundings, also serves as a protective covering. The result is a sealed, protective coating that virtually eliminates exterior maintenance.

The expanses of solar reflective glass not only reflect the mountains and forests of the area but also allow much of the building to be well-lighted in the daytime with only a minimum amount of supplementary electrical lighting.

That same solar reflective glass is capable of absorbing the sun's heat:

Opposite Page: The explosive handling wharf rises out of early morning mist on Hood Canal. Left: A chief takes a break at one of the base's protected wildlife habitat areas. Below: Trident Training Facility is the largest building on base.



heat that may be used to aid the school's physical plant in heating the building.

And consider that physical plant. It is set next to the woods away from the main building. All wires and pipes that run between the two are located out of sight in underground tunnels.

Each building on base reflects still other energy-saving elements. They might be as simple as ensuring each building has the maximum amount of recommended insulation or as interesting as the Enlisted Dining Facility with its skylights and numerous windows.

Utilities

Even though conserving resources is reflected in the base facilities, it still takes a lot of power and water to support a base the size of Bangor. And the job gets bigger when one considers the importance of guaranteeing sources of each for critical security and operational areas on base.

To accomplish this, the Navy decided to purchase its electricity from the most economical source, the Bonneville Power Authority (BPA), while also developing emergency power generation capacities on base.

The base produces all the water it needs—and then some. This excess came about because the engineers designing the drydock discovered artesian conditions at the drydock site. In order to build the drydock, a number of wells had to be dug to relieve this water pressure during construction. The result was more wells than necessary to supply the base's water supply. So as to ensure a back-up supply of water, the Navy decided to maintain these extra wells in working order instead of abandoning them.

While the Navy awaits construction of the Kitsap County Sewage Treatment Facility, which it helped to fund, an interim, on-base sewage treatment plant has been built. This interim plant, plus three smaller facilities that have been on base for years, will work as sewage treatment back-up plants once the county facility is operational.

Having these back-up utility sources was a rather important design consideration. The base must have the potential to be self-sufficient to ensure its mission requirements are met and to lessen the chance of having to draw from the surrounding community during a period when such a drain might inordinately strain those local facilities.

Decreasing the impact—or the potential for impact—on the surrounding area manifests itself in other areas of the base. At one of the base housing sites, engineers saw that considerable clearing would be required for construction of the 564 enlisted housing units planned there. Storm water run-off from the new houses and streets in this southeast portion of the base was bound to increase considerably. This excess water would run from the hilltop site to offbase and pose a potential flood threat to local residents.

Enter the double-duty thinking Navy planners. They formulated an answer that makes both on- and off-base residents happy: build two storm water retention lakes in series. This allows the base to control the flow of water during heavy rains and, therefore, protect off-base residents from floods. These lakes, once filled, also will provide on-base residents with a nearby center for recreational boating, fishing and swimming.

The work being done at Naval Submarine Base, Bangor, Wash., reflects some of the most sophisticated and innovative building techniques permitted by modern technology. It is still, however, a human effort.

People doing a job, multiplied by the immensity of the job, are bound to equal some mistakes. Mistakes cost money, upset work schedules and lessen the Navy's reputation as a good neighbor in the community. Since the Navy cannot afford to spend more money, more time or injure its reputation, these human mistakes must be kept to an absolute minimum.

The Navy's efforts in the Pacific Northwest reflect a system of checks and balances designed to protect the environment and control the impact of the base upon the community while ensuring the orderly and fiscally responsible construction of that base.

This demonstrates that getting the job done is no longer the sole criteria of military base construction. Indeed, during World War II, the last period of large-scale base construction, the military did not—nor were they expected to—justify their on-base actions to the nearby off-base communities. LCDR Wynn believes the construction of the base at Bangor reflects a new set of standards that the Navy shares with America.

"The Navy has a prime piece of real estate here. We've made a commitment to the people that reflects this fact. When we put this facility in, it will be something pleasant, something that will not be an eyesore and that they can live with without disrupting their lifestyle any more than necessary.

"To the maximum extent possible, we're meeting that commitment. We're trying to preserve what was here before we ever came along. After all, it was nice before. Why not keep it as nice as possible?" ⚓

Above: Construction continues on the delta pier. Right: Enlisted housing units near completion on the edge of the forest.

TRIDENT

Providing full tactical, logistic and personnel support to the *Trident* Weapons System is a big job—a job made critical by *Trident's* scope, complexity and strategic importance to national defense. Because of this, support for *Trident* became one of the first assignments for *Trident* planners.

Keeping the submarines on patrol—fully armed and operational—will be accomplished more effectively, thanks to a number of new approaches to the business of submarine and weapons system maintenance. These approaches are reflected in submarine design, support base layout and function, and state-of-the-art training techniques for *Trident* crews.

Here's what *Trident* people will have at their disposal to see that the job gets done better:

Trident Submarine

Because of a lack of working space, maintaining submarine equipment and installing new equipment are complicated and time-consuming problems on pre-*Trident* generation submarines.

Any piece of equipment that is removed from or installed in a submarine must pass through personnel access hatches. The size of these hatches—usually no more than 26 inches in diameter—required that major equipment be disassembled before passing from submarine to dock or vice versa. This disassemble-pass through-reassemble routine is time taken from a submarine's refit.

Although it's been a fact of submarines' lives for years, design experts decided this was not to be the case with *Trident*. Two submarine design concepts have been developed that will enable *Trident* personnel to service, repair or replace components or entire systems more quickly and efficiently. First, enlarged special logistic access hatches are installed and, second, components are designed to pass through these enlarged hatches.

These two concepts will permit a minimum number of personnel to remove a defective component and run it to an access hatch where it will be lifted to the pier. A replacement modular component may then be hooked up, lowered into the submarine and transported to its installation point.

If it's going to be easier to fix *Trident* equipment, it is also going to be easier to identify what needs fixing. Electronics systems will, in many cases, monitor their own health, sound an alarm when a malfunction occurs, and locate the fault for repair.

The planned maintenance and equipment replacement schedule will ensure routine preventive maintenance is performed on equipment when it is needed. This schedule will identify equipment to be removed for maintenance and replaced during each of *Trident's* in port, refit periods. The intent is that a maximum amount of maintenance be performed before a piece of equipment reaches the breakdown point.

These design concepts—which will be combined to decrease the in port time and increase the operating effectiveness of the submarine at sea—are only part of the reason why *Trident* will be able to spend up to 16.7 percent more time at sea than is possible with our present day SSBNs. They are also only part of the explanation why the planned crew for *Trident* is only 10 percent more than that of *Polaris* and *Poseidon* submarines.

The other reasons for this increased efficiency, dependability and ease of maintenance are ashore at the Naval Submarine Base.

Naval Submarine Base Bangor

Providing full support to the *Trident* system from shore starts with a simple premise: put everything *Trident* needs in one place and make that one place *Trident's* homeport.

Construction of the base at Bangor, Wash. gives Navy planners the opportunity to build a fully-integrated, CONUS-based support site for the submarine community. The West Coast location of the base, coupled with the long-range characteristics of the *Trident* missile and submarine, will permit submarines to depart their homeport and almost immediately be on-station and in missile range of the assigned targets. *Trident* submarines, therefore, will not be required to make extended transits to their operating areas or depend upon U.S. bases located on foreign soil for logistic support.

But the *Trident* system must have full support from ashore if it is to retain that advantage. Here's how it will be accomplished—

Four commands in one

Three new U.S. Navy shore commands—Naval Submarine Base Bangor, *Trident* Refit Facility, and *Trident* Training Facility—have joined the existing Strategic Weapons Facility, Pacific, at the former Bangor Annex of the Naval Torpedo Station, Keyport, Wash. Located on a 6,929-acre complex on the Hood Canal in the Puget Sound area, these commands will provide dedicated support to the personnel, submarines, and missiles of the *Trident* system.

The location of complete *Trident* support facilities at one U.S. base also will eliminate the expense and time lost in transporting crews between homeport, refit and training activities. This will allow all *Trident* crew members to be near their families while not on patrol, and both blue and gold crews will be available to assist in the submarine refit efforts.

All of this adds up to a quick refit and turnaround time for *Trident* resulting in a cost-effective system that keeps the submarine at sea a high percentage of the time.

Trident Training Facility

The *Trident* Training Facility (TTF), housed in the largest building on base, will be used to train officer and enlisted personnel in all basic and advanced *Trident* unique skills. It also will provide functional, refresher and team training to *Trident* submarine crews and submarine support personnel to increase and maintain their knowledge of *Trident* systems.

Located in the central core area of the base, TTF will allow students from the Bachelor Enlisted Quarters and base housing to walk to their classes.

The training facility will employ training techniques such as mock-ups, and computer simulated and stimulated systems and equipments.

Trident Refit Facility

This facility will consist of refit, service, and magnetic silencing piers; a drydock; repair shops; and other waterfront facilities required to support *Trident* submarines in refit. *Trident* refit piers, configured in the shape of a delta, will consist of two 700-foot piers and a 690-foot drydock. A 58,000-square-foot support building is being constructed in the center of the pier. This Refit Delta will provide services to three submarines simultaneously and can support a squadron of 10 *Tridents* once it is fully operational.

Strategic Weapons Facility, Pacific

The Strategic Weapons Facility, Pacific (SWFPAC), provides support to the Navy's *Polaris* missile program and is being expanded to support the *Trident* system. It will include two explosives handling wharves (covered piers where submarines will load and unload their explosives), and facilities for reassembly processing, maintenance, and storage of the *Trident* missiles.

The SWFPAC facilities have been designed to ensure appropriate missile handling at safe distances and to provide the required security as well.

Naval Submarine Base

When the Naval Submarine Base reaches its projected 10-submarine homeport limit sometime in the mid-80s, *Trident* sailors will walk from their BEQs, BOQs or Navy homes to the *Trident* Training Facility, Navy exchange, dining facility, base library and theater as well as to many of the other base facilities.

All of the facilities needed to support the *Trident* system fully will be under the host activity's administrative umbrella. Besides coordinating the various *Trident*-support functions of the site's tenant activities, the Naval Submarine Base will also have the task of providing liaison between *Trident* base and the local civilian community.

The advantages

It makes sense to put everything needed to support *Trident* in one place. But it goes beyond providing effective personnel and logistic support to the *Trident* weapons system. Some very real advantages accrue to the *Trident* sailor stationed there. Captain A. K. Loposer, commanding officer of the *Trident* Training Facility, described these advantages.

"For the first time, if a man really wants to, he can put in almost an entire Navy career here. He could complete a three-year submarine tour and then come ashore at one of a number of *Trident* activities on base, or serve at nearby Keyport Torpedo Station or Puget Sound Naval Shipyard in Bremerton.

"If the sailor likes it here, he can put down some real roots and become an active member of the community. I think we're going to have a more stable Navy because of people who elect to do things like that."

Trident, then, will be one of America's premier strategic deterrent systems into the 21st century, thanks to a combination of advanced technology and farsighted planning.

Good neighbors in Bangor

Before the decision had been made to locate the new *Trident* submarine base in Kitsap County, Wash., Navy people had begun examining the base's potential impact on the residents and land of the surrounding communities.

Once the Bangor site had been selected, it soon became apparent that close liaison between the Navy and the local residents was important if that impact was to be controlled.

For example, one projection showed the county's population will grow—because of the base—24 percent to almost 160,000 people by 1985.

"More people mean more schools, roads, services—like fire and police departments—and more utilities and facilities," said Peter Crane, Kitsap County *Trident* Coordinator.

"We wanted to make sure this is controlled, orderly growth; growth without losing the basically rural setting of the county."

One of the first questions needing an answer was, where would the county government get the extra money for extra services?

In most places, when a new company moves into a new area and employs a large group of people, that company provides the extra money for an increase in local services through the taxes it pays.

But it's not like that in Kitsap County. The federal government—which will employ an estimated 54 percent of the labor force in the county when Bangor is fully operational—pays no taxes. Sure, the people who work at places like Puget Sound Naval Shipyard in Bremerton or the Torpedo Station at Keyport pay property taxes, sales taxes and the like. But that's only enough money to operate existing services and not enough to allow for growth.

Lieutenant Commander A. L. Wynn, environmental officer for OICC *Trident,* explained how the Navy, working with both local and federal government agencies, helped to solve this critical money problem.

"Once the scope of the tremendous impact the base would have on the community became obvious, we began working together to administer a Federal Impact Program that Congress had previously passed as part of the Military Construction Act," he said.

"We are working with state and county agencies to make sure those funds are wisely spent. For example, all of us want to make sure that what we do on base in the way of utilities, road construction or special environmental studies neither duplicates nor conflicts with the efforts of the state and county governments."

One result of this type of liaison was the decision to build two schools just outside the base. These schools will serve both on-base, dependent personnel and off-base, civilian students. For one of the schools, Navy land was made available for the construction.

Another result involves the planned sewage treatment facility that will serve both the central portion of Kitsap County and the base. The Navy will pay more than 40 percent of the construction costs and 100 percent of the cost of a several-mile-long sewage line between the base and the plant. The county will pay about 10 percent of the remaining costs with the rest of the funds coming from Federal Impact and state funds.

"We'll be the only ones using the sewage line between the base and the facility because the county's land-use plan directs that the land through which the line passes be kept a rural, undeveloped area," Wynn said.

The county's land-use plan was a beneficial side effect to the decision to build the base in Kitsap County. County *Trident* Coordinator Peter Crane tells how:

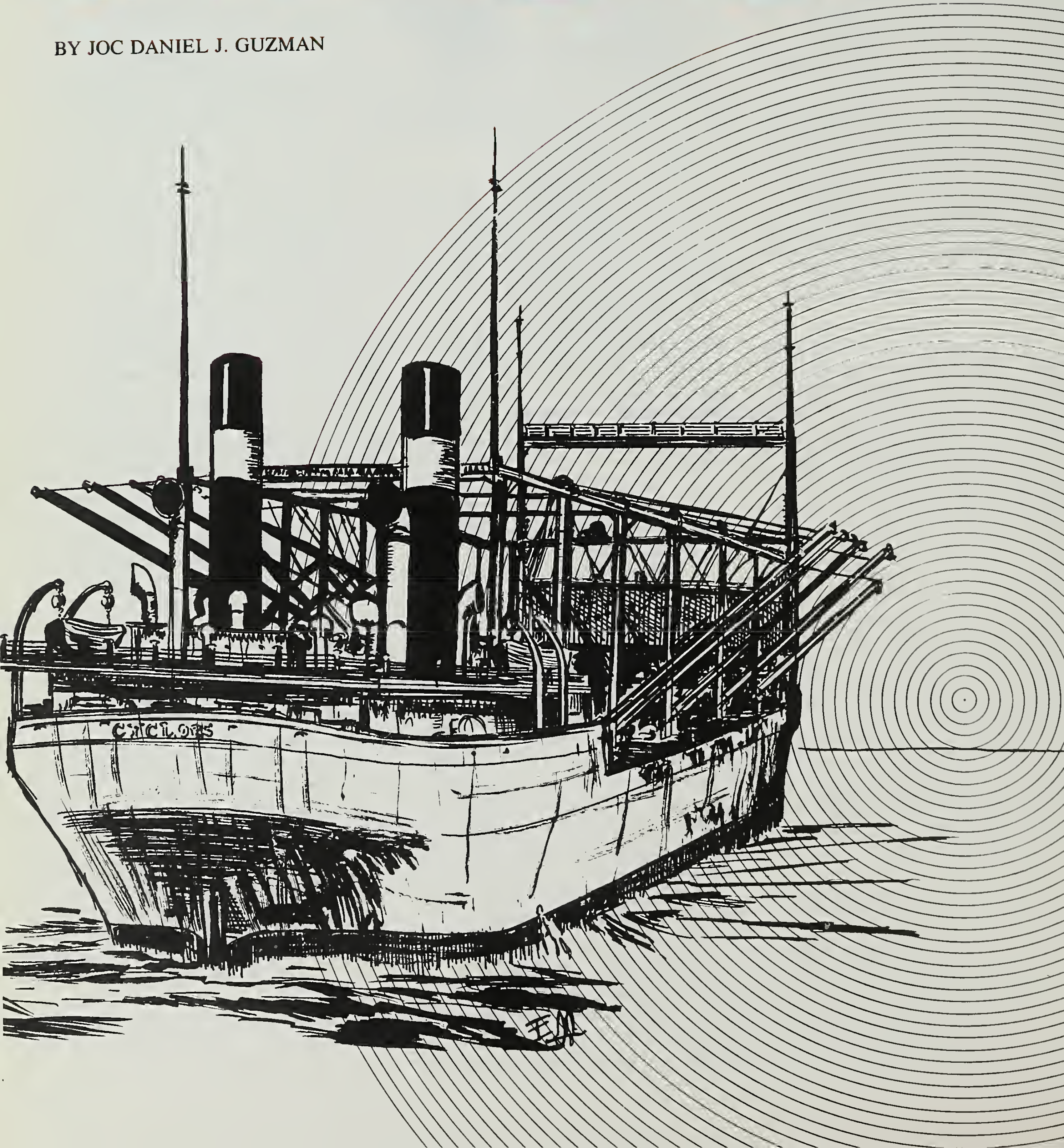
"Many areas of the country have had their growth sneak up on them. Communities woke up one day and found mixed up commercial and residential areas that cause problems in services. There might be too many hospital beds here and not enough there, or overdevelopment blights like neon strips, fast food chains and the like.

"The *Trident* project encouraged the Kitsap County planners to look far down the road and come up with a comprehensive land-use plan that reflected future needs, desires of local citizens and the adequate consideration for the health, safety and welfare of county residents."

Both the county and the Navy decided this close liaison will be continued. To ensure this, what's best for both will be examined by a standing committee of senior Navy and local government officials.

Last voyage of CYCLOPS

BY JOC DANIEL J. GUZMAN



1 AUGUST 1974:
"USS OPPORTUNE *IS INVESTIGATING A WRECK 80 NM NORTHEAST OF CAPE HENRY THIS MORNING IN 29 FATHOMS OF WATER. THE WRECK IS BELIEVED POSSIBLY TO BE THAT OF THE USS* CYCLOPS, *THE NAVY COLLIER LOST WITH ALL HANDS IN 1918. DIVERS ABOARD THE* OPPORTUNE *INTEND TO TAKE PHOTOGRAPHS AND VIDEO TAPE TO ASSIST IN AN IDENTIFICATION TODAY. PHOTOGRAPHS TAKEN YESTERDAY AS WELL AS RECOVERY OF SHIP'S BELL FAILED TO PROVIDE A POSITIVE IDENTIFICATION."*

5 AUGUST 1974:
"THE SALVAGE SHIP OPPORTUNE *(ARS 41) RETURNED TO NORFOLK FRIDAY AFTER COMPLETING THE SEARCH FOR USS* CYCLOPS *OFF CAPE HENRY. DIVERS' OBSERVATIONS AND UNDERWATER TELEVISION PHOTOGRAPHS HAD ESTABLISHED THAT THE WRECK LOCATED WAS NOT THE* CYCLOPS *. . . IN ANY CASE, THE FATE OF THE* CYCLOPS *REMAINS A MYSTERY."*

On March 4, 1918, the U.S. Navy collier USS *Cyclops* got underway from Barbados, British West Indies, bound for Baltimore, Md. She carried 15 officers and 221 enlisted men and, as passengers, six officers, 64 enlisted men and two U.S. Marines. Additionally, the U.S. Consul at Rio de Janeiro, L. M. Gottschalk, boarded *Cyclops* after she had loaded 10,800 tons of manganese ore for delivery to Baltimore's steel mills.

Cyclops was due in Baltimore on March 13. She never arrived nor was she seen again.

The nature of *Cyclops'* disappearance has not been resolved though there has been much conjecture. Every plausible idea advanced to explain her disappearance has been *impossible* to support with fact.

Here, we merely compile facts that have been set to paper in the past, and hope that an insight into the ship and her captain may prove interesting to those with a curiosity about this mystery.

There is not much in writing about George Worley, the man who commanded *Cyclops* on her last voyage. It is known that he was German-born, that his real name was Johann Friedrich Georg Wichmann, and that he was brought to the United States as a child. While living in Port Orchard, Wash., he assumed his foster father's surname, Worley. At age 25, George Wichmann Worley journeyed to the Bremerton Navy Yard and joined one of the civilian crews manning naval hospital ships and auxiliaries. There is a gap from then until about 20 years later, in 1910, when he is ordered aboard the naval auxiliary service (NAS) collier *Cyclops* as master. With the American entry into World War I, the auxiliary service was abolished and the crews became Naval Reservists on active duty.

So it was that on Feb. 16, 1918, Lieutenant Commander George Worley, U.S. Naval Reserve Force, was commanding USS *Cyclops*.

The next time Worley's name is found is in the July 1969 issue of United States Naval Institute *Proceedings*. The writer is Conrad A. Nervig, an officer who served on *Cyclops* on her voyage from Norfolk, Va., to Rio de Janeiro where he was detached and ordered to USS *Glacier*. It was on *Cyclops'* return voyage to the U.S. following Nervig's departure that she disappeared.

In his article, Nervig provides his personality sketch of Worley as a commanding officer—one that is not too complimentary.

According to Nervig, Worley developed a liking for him and established a routine of visiting him during late watches on the bridge. He describes Worley as a ". . . gruff, eccentric salt

of the old school, given to carrying a cane, but possessing few other cultural attainments.'' He also saw Worley as a ''. . . very indifferent seaman and a poor, overly cautious navigator. Unfriendly and taciturn, he was generally disliked by both his officers and men.''

Some of the incidents that Nervig relates as having taken place aboard *Cyclops* leave one wondering about the captain.

A few samples:

- His attire on his regular nocturnal visits to the bridge never varied ''. . . long woolen underwear, a derby hat, and a cane.''
- ''On the fifth day out, the Captain ordered Lieutenant Forbes, the executive officer, to his room under arrest following a trivial disagreement about ship's work. From all reports, this seemed to be a routine matter in ships commanded by Captain Worley.''
- ''In the evening of this same day, Ensign Cain, one of the watch and division officers, apparently in good health, was placed on the sick list and ordered to bed by the doctor. It was the general opinion in the wardroom that this was done to save Mr. Cain from being a victim of the Commanding Officer's unreasoning temper.''
- ''On the 12th day, we came in sight of the coast of South America off Pernambuco, at a distance of about 20 miles. The Captain immediately changed course to take us farther out. We came to anchor off the city of Bahia on 22 January 1918, after running 48 miles past the entrance of the harbor. Three more hours of darkness, steaming on that course, would have had her aground. The navigator had protested, pointed out the error of these decisions, but had been brusquely overruled.''

If Mr. Nervig's observations are correct we now have a character sketch of the ship's captain, the man who was to sail her into the Western Atlantic and oblivion.

Nervig's assessment of Worley is strengthened by a letter in the January 1929 issue of *Proceedings* written by Brockholst Livingston III, son of the American Consul to Barbados. He takes Worley's navigation to task. His father, Brockholst Livingston II, in reply to State Department correspondence, cabled back a report which included rumors of disturbances aboard *Cyclops*, including men confined and one executed.

Now, what of *Cyclops* herself? Was she seaworthy?

Yes. Most definitely! At the time she was built in 1910 her class of ship was considered the last word in marine construction. When she visited Kiel in 1911, she was inspected by German naval engineers who pronounced her an ''outstanding ship.''

Cyclops was one of ten ships authorized by Congress between 1908 and 1911, and put into service between 1909 and 1913. These ships consisted of the *Jupiter* class (*Jupiter, Cyclops, Neptune*); the *Vulcan* class (*Vulcan, Mars, Hector*); the *Proteus* class (*Proteus, Nereus*); and the *Orion* class (*Orion, Jason*).

Cyclops was designated a fleet collier, as were the other two ships in her class and the ships in the *Proteus* and *Orion* class. The smaller 403-foot *Vulcans* were classified colliers.

Cyclops' keel was laid June 2, 1909. She was launched May 7, 1910, and put into service Nov. 7 the same year. Built by William Camp and Sons, Philadelphia, she was a twin-screw collier of 19,360 tons displacement. Her rigging—a complex arrangement of king posts and coaling booms—gave her a grotesque look, but enabled her to refuel coal-burning ships at anchorages and bases.

She saw service with the Atlantic Fleet until January 1918 when she was reassigned to duty with the Naval Overseas Transportation Service.

Her first assignment under new management was to deliver coal to Bahia, Brazil, and return to Baltimore via Rio de Janeiro.

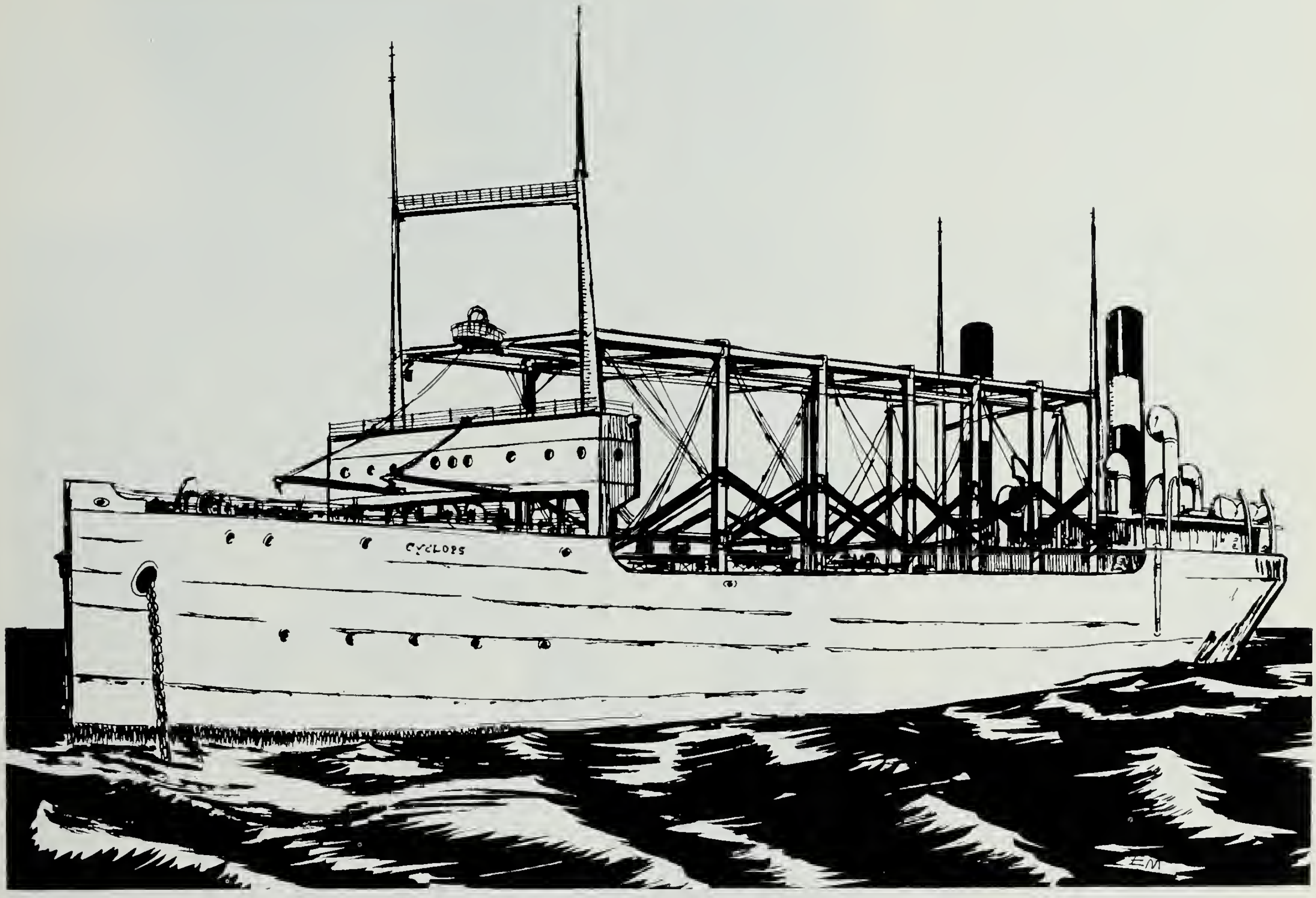
What happened to *Cyclops* and the 309 people aboard her after she left Barbados?

As stated, there have been numerous theories advanced regarding the cause of her disappearance: torpedoed by a German submarine—after the war, German and British records showed that there had been no German submarines or mines in her area during the time in question; storms—Navy records show that there were no storms of any consequence in her area; she broke in two and sank quickly—those associated with *Cyclops*' sister ships state that this could not have happened as the other ships in her class experienced no problems which would indicate a tendency toward this.

One of the more widely accepted explanations is that given by then Lieutenant Commander Mahlon S. Tisdale who believes rough seas caused her cargo to shift, creating a list that was accentuated by the free surface effect of water in slack double bottoms.

Tisdale, who had previously served on *Cyclops*, says that the topside manhole covers were generally left open for ventilation. Thus the ship would have taken green water down the openings as a result of the list and rough weather. The later absence of flotsam he explains by the practice on *Cyclops* of thoroughly securing and lashing down all topside gear. The only problem with this theory is that the Navy, and the Secretary of the Navy himself, stated that there was no inclement weather of any consequence in *Cyclops*' area at the time of her disappearance.

When announcing her overdue on May 14, 1918, Secretary of the Navy Josephus Daniels stated that there had been no bad weather, no distress signals and no German ships or subma-



rines near her route. Search attempts included sending ships on her last track to look for some trace of her, searching West Indian beaches and talking to islanders.

In his Annual Report to the President on Dec. 1, 1918, the Secretary of the Navy wrote, "There has been no more baffling mystery in the annals of the Navy than the disappearance last March of the U.S.S. *Cyclops,* Navy Collier of 19,000 tons displacement, with all on board . . . No reasonable explanation of the strange disappearance can be given."

After months of searching the Navy finally gave up the *Cyclops* as lost and her name was stricken from the registry.

One theory that has not been mentioned yet is that of "supernatural" forces. *Cyclops,* and, later, her sister ships *Nereus* and *Proteus* were all lost in an area resembling a triangle, with one point of its base at the Florida coast, the other base point at Puerto Rico, and the apex at Bermuda—the Bermuda or Devil's Triangle!

Cyclops was by no means the only U.S. Navy ship to disappear mysteriously. In March 1781, USS *Saratoga,* a sloop of war commanded by Captain John Young, disappeared after sailing from Cape Francois, Haiti; in August 1800, USS *Pickering,* a cutter commanded by LT Benjamin Hillar sailed from Newcastle, Del., bound for the West Indies and was never heard from again; on July 4, 1915, USS *Epervier* was sighted passing the Straits of Gibraltar and was not seen again; USS *Lynx,* a schooner commanded by LT John Madison, sailed from St. Mary's, Ga., on Jan. 22, 1821, bound for Jamaica and was never seen again; USS *Albany,* a sloop of war under Commander J. T. Gerry, sailed from Aspinwall for New York on Sept. 29, 1854. She was never heard from or seen again.

Disappearances in those days of "wooden ships and iron men" were not rare, but what has baffled searchers and thrown a shroud of mystery over these and the *Cyclops'* disappearances is the complete lack of flotsam that normally marks a shipwreck. ⚓

Baked Alaska on a Tin Tray

STORY AND PHOTOS
BY PH1 TERRY MITCHELL

Experts show award winners how to stay on top

If you're fortunate to have mess management specialists who have won the Ney Award, the menu in the plan of the day may read—hors d'oeuvres, stuffed tomato escoffier, roast stuffed chicken, baked Alaska and coffee. Not your typical Navy menu, but neither are the planners of such a sumptuous feast typical Navy cooks.

The Ney Award, named in honor of Captain Edward F. Ney (SC) is given to the best messes afloat and ashore that demonstrate excellence in preparation and service of food and management of food service operations. The judging for this award includes a total review of each mess operation from the ordering of the supplies, through the food on the serving line, to food wastage in the scullery.

Afloat winners and second-place finishers send a representative to a two-week course in professional cookery at the School of Hotel and Restaurant Administration at Cornell University, Ithaca, N.Y. Their ashore counterparts attend a similar course at the Culinary Institute of America in

Hyde Park, N.Y.

Donning chef's hats and aprons, students go through a curriculum that would make the ardent gastronomist's mouth water and the supply corps officer happy as well.

Given ample "hands-on" experience, each student prepares a wide variety of food from a simple hors d'oeuvre to a complicated sculptured pastry. In many cases, the entire class is given a chance to taste their successes and their failures.

As part of the course at Cornell, the students take over the school's cafeteria for an evening meal. Planning for that meal begins the first day of school with the selection of the menu. Once the menu is decided upon, the class costs-out the meal, much as a restaurant does in order to assure a

It's the extra touch that counts

profit or, in the case of the school's cafeteria, to break even.

Their patrons for the meal are other students attending the school. But these people are not the ordinary hamburger and french fries crowd. Most are owners, managers or chefs from restaurants around the world, and they're usually a pretty critical clientele.

Once the cafeteria is closed and cleaned up for the evening, the instructors hold a debriefing to point out mistakes and pass on congratulations where warranted.

Creating fancy foods isn't the only thing on the schedule. Recipe standardization, supply requisitioning, sanitation, butchery and something as simple as folding a napkin are all subjects that must be thought of before the food hits the serving line.

The result of the two weeks of intensive cookery sometimes shows immediately at the student's waistline. But if your mess specialists are Ney Award winners, you'll see the result on the serving line and maybe even your own waistline. ⚓

Reservist Vignettes

Active duty Navy people sometimes forget that the Naval Reservists are also a vital, indispensable component of the sea service. The following vignettes—though not by any means the sum total of everything reservists do—show examples of reserve ingenuity and humanitarian accomplishments during recent months.

Making Do With "Can Do"

Two weeks of active duty training completed, 135 Naval Reservists of Patrol Squadron 62 checked their seatbelts and took a last look at Rota, Spain, while their Trans World Airlines 707 lumbered down the runway. Each expected to be in Jacksonville, Fla., 10 hours later (by late Sunday afternoon) and back at their civilian job Monday morning. Then there was a sudden change in plans.

As the jet taxied into takeoff position at Naval Station Rota, black smoke began pouring from the outboard port engine. The pilot brought the plane to a stop as a crash crew hurried onto the runway. Asbestos-clad firefighters soon surrounded the craft. The pilot asked for a tow to the terminal. However, no tow was available. At the end of the runway, the plane remained stalled in the midday sun.

Mechanics began dismantling the wing and a truck with an adjustable stairway arrived to offload passengers. Some rode back to the terminal to begin the vigil since there wasn't enough "room at the inn" for all. The rest gathered in groups on the runway and discussed alternatives to their plight. What had begun as a routine 40-minute hop to Lisbon before flying on to the states, had become a frustrating delay.

Several hours later, everyone knew the situation. The problem was in the aircraft's hydraulic system—a simple fitting, part of a reducing valve, had cracked. Under normal conditions it could be easily replaced, but today was not normal: no replacements were available. Not in Rota. Not in Spain. Not in Europe. The closest spare was in New York.

By then the alternatives were clear—wait at least 24 hours for a replacement part to be flown in from the states, or make one. The first solution was unacceptable. As unlikely as the latter solution seemed, three reservists began looking for raw materials to manufacture the needed part.

The three were Petty Officer 1st Class Bob McCallum, a civilian machinist, Chief Petty Officer Tom Eginberger, a civilian airline pilot who holds an airplane mechanic's license as well, and Commander L. S. Connor, a flight surgeon with an interest in metal working. They found the needed materials on board USS *Canopus,* a sub tender in Rota.

The damaged part—about the size of a doorknob—was a squat, hollow, aluminum bolt with a large hole going in one end and a small one at the other. Starting with a similar, but oversized part from a submarine, a *Canopus* machinist ground down the outside diameter and changed the threads. The inside was rebored to accept the two airplane hydraulic lines. Working through the afternoon and into the night, the four slowly manufactured a reducing valve.

At 11:00 p.m., it was announced that the plane was repaired and ready for boarding. A muster was taken and 135 Navy men boarded again with fingers crossed. Before the whole unit had entered the 707, all the plane's lights went off—seconds seemed like hours, but the lights came on again and stayed on.

For the second time that day, the plane rolled to the end of the runway, turned and made its takeoff run. There was no smoke this time. When the 707 lifted off at 11:58, a polite and thankful applause could be heard above the roar of engines.

Ten hours later, Patrol Squadron 62 landed in Jacksonville. It was 4:00 a.m. local time—half a day late, but still half a day earlier than they would have been had it not been for the determined ingenuity of three reservists and a helping hand from a sub tender.

—LCDR M. D. Wozniak

Needed: More Glasses

Remember when filling stations gave a water glass with each fillup? Those days have been revived by the reserve training destroyer USS *Henderson* (DD 785) as part of a retention and

regular drill attendance incentive.

A reenlistment or a drilling quarter of perfect attendance earns the reservist a glass emblazoned with the silhouette of the Fram I destroyer, inscribed "USS Henderson." The object, of course, is to earn a set for yourself.

Commander John F. Leahy, the destroyer's reserve coordinator, originated the idea during a program to man the ship's force with 65 percent reserves and 35 percent regulars. "That program has since changed," the commander said, "but the idea of awarding glasses continues. It's working out—we are just about out of the second order of 300 glasses and we're only in the seventh month of our program."

The glasses are important to the program's success—they are unavailable anywhere else—but the continued success of the reenlistment and perfect attendance effort is based on the pride each crewmember feels for his ship and unit.

"This program is positive and seems to help reenlistment and retention," said Commander Glenn E. Shrader, commanding officer of *Henderson*, and owner of a complete set of glasses himself. The commander said that the glasses are only part of the ship's retention program. Other incentives are: an elaborate reenlistment ceremony; a personal letter from the CO to the reenlistee, his wife, family, CPO and division officer attend the shipping-over ceremony; an autographed (by the CO) photo of *Henderson*; a ship's mug; and a day off for the reenlistee's entire division.

—LCDR David Kishiyama

Mission of Mercy

Thanks to the efforts of the active duty Navy on board USS *Robert H. McCard* (DD 822), two reservists—Commander Wade Hargadon and Lieutenant Commander N. R. Mabry (MC)—and Rotary International's 695 Clubs of Central Florida, a medical clinic now stands at Ile de la Gonave, near Haiti.

The Navy became involved when CDR Hargadon, president of the Rotary Club of Seminole County, South, in Florida, wrote Admiral Isaac Kidd, CINCLANTFLT, to ask permission to ship six tons of prefabricated building material for the clinic on board *McCard*. Both he and LCDR Mabry had served their active duty for training on *McCard* earlier in the year.

Adm. Kidd approved the project and Commander Gary Barnum, *McCard's* skipper, invited the two reservists to accompany the shipment. Without the cooperation of the regular and reserve Navy, the Rotary's project would have been nearly impossible—Ile de la Gonave is not accessible to regular shipping. The time, effort and expense saved assured the success of the club's effort to provide more than 30,000 natives with a semblance of medical care.

By the time *McCard* got underway, the crew was already asking questions about three-inch thick aluminum skin and rigid Styrofoam insulating filler on the helo deck. "Men who came into sick bay never missed an opportunity to ask me for details," LCDR Mabry said.

On arrival in Ile de la Gonave, a boat looking like something out of the movie "African Queen" pulled alongside and *McCard's* Lieutenant Bill Rigot called for volunteers to offload cargo. Sixty men appeared within seconds and worked through the night.

"The next morning we all boarded the trader to deliver the clinic to the village," LCDR Mabry said. "The *McCard* crew had been spontaneous with their gifts of food and clothing to the native crew of the trader and its passengers as was evident by the number of the natives wearing Navy hand-me-downs."

When *McCard* got underway for refresher training, every member of her crew had the feeling that they, along with two of their own who cared, had done something worthwhile. ⚓

—LCDR N. R. Mabry

Will YOU supply EYES for the NAVY?

NAVY SHIPS NEED BINOCULARS AND SPY-GLASSES

Glasses will be returned at Termination of War, if possible
One Dollar will be paid for Each One Accepted
Tag each Article with your Name and Address and express or Mail to
Hon. Franklin D. Roosevelt, Ass't Sec'y of Navy
% Naval Observatory-Washington D C

WILL YOU HELP US "STAND WATCH" ON A DESTROYER?

The 'Eyes of the Ship' - They're still around

"Land ho!"

"Thar she blows!"

Movie buffs may identify such cries as belonging to an old sailing ship lookout—the eyes of a ship. However, his real-life counterpart still sails the oceans and furnishes reports of everything he sees—aboard modern Navy ships.

Around the clock on the nuclear-powered aircraft carrier USS *Nimitz* (CVN 68), lookouts scan the sky and ocean for anything that could pose a danger to the ship. Everything from driftwood to aircraft, from ships to oil slicks, is reported.

Lookouts are not just an archaic convenience—they are required by Rule 5 of the International Regulations for Preventing Collisions at Sea. The rule states: "Every vessel shall at all times maintain a proper lookout by sight and hearing, so as to make a full appraisal of the risk of collision."

Seventeen men are assigned to *Nimitz's* Operations/Lookout and Recognition (OL) Division. Three men equipped with sound-powered telephones, binoculars and foul weather jackets are on watch continuously. One lookout searches forward while his two shipmates scan aft—one to port, the other to starboard.

Sometimes hours pass with nothing but empty ocean in sight, but the lookouts keep searching. When an object is spotted, the lookout reports the bearing and gives a brief description to the bridge's watch team. However, one report is not enough. The lookout continues to check on any previously sighted object and reports any change in its status. For example, a ship contact may change course or an aircraft may lose altitude for a low pass across the ship—above all, it's the lookout's job to keep the bridge informed.

Ensign Donell Cox, OL Division Officer, describes his division's responsibility as challenging and notes, "It is what is not seen and not reported that can do us the most harm."

Most *Nimitz* lookouts are new to the Navy and lookout duty is often their first assignment after a training program featuring video taped presentations, visual aids, ship and aircraft recognition posters and flash cards. Presentations are also made concerning different navigational light schemes and the rules of the nautical road—the same rules that require lookouts for safe navigation.

The most beneficial training a lookout receives, however, is on-the-job experience. Standing a six-hour watch,

a lookout can expect only 15 minutes out of every hour to rest his tired eyes and feet and drink a cup of hot coffee. For the remaining 45 minutes, the lookout stands his watch alert in all kinds of weather.

Fog is the one unknown that lookouts dread most. It knows no convenient hour and may set in at any time making it difficult to see and impossible to distinguish distant objects. Therefore, his ears become critical to foghorns and other sounds.

Watches are doubled during conditions of low visibility—one man listens for sound, the other makes reports over the sound-powered telephone. Additional lookouts are placed on the bow and stern of the ship. Often, lookouts who have just completed a six-hour tour may be awakened minutes after falling asleep to return topside and stand watch as fog lookouts.

Lookout duty doesn't end when the ship drops anchor—in low visibility the watch goes on in port just as if the ship were underway.

Six months is the maximum tour for a lookout in OL Division and when his tour ends, he finds support from his division.

"Lookouts get a good start on their *Nimitz* career," Cox said, "and we provide a chance to set some personal goals as well."

The long hours of solitude provide time for a lookout to think over his career intentions and decide on other interesting and rewarding jobs aboard *Nimitz*. As an added incentive and reward for doing a demanding job, a Master Lookout Program is being developed to recognize lookouts who have performed their duties with noteworthy expertise and dedication.

Day and night, as the ship steams, lookouts are on duty. As the crew of the *Nimitz* work and relax, eat and sleep, lookouts continue their never-ending search of sea and sky. ⚓

Ensign Donell Cox and Seaman Apprentice Coleman on the bridge of USS Nimitz *(CVN 68) during a training session.*

Ever Since Columbus...

About 0200 on October 12, 1492, Rodrigo de Triana sighted a line of white surf breaking on a tongue of land. Triana's shout of "*Tierra!*" (land) was Christopher Columbus' actual discovery of the New World.

Since Columbus received credit for the discovery, it's noteworthy that Triana, a simple seaman, is mentioned at all. Before Columbus sailed on his historic voyage, Queen Isabella had offered a lifetime pension of $60 a year to the first man to sight land. When it came time to collect, Columbus stepped forward and claimed the prize. Triana, in disgust, went to North Africa and became a Moslem. Consequently, one of the best known lookouts was all but forgotten by history.

Since man first got his feet wet on a seagoing vessel, it has been survival, not law, that has dictated the need for lookouts. As far back as 1200 B.C. the Egyptians realized the advantages to be gained from being the first to sight an enemy and added a crow's nest to their warships.

Lookouts were often the key to accurate navigation, especially when a ship maneuvered close to shore where shoals could easily rip a hole in her. Money was, and still is, another factor involved in the use of lookouts. Whalers and others who profit from the sea found need for a sharp eye. Unless there was someone to sight the whales and yell "She blows," voyages would have proved fruitless.

The role of the lookout has changed little down through history. While it's true a lookout now has the benefit of binoculars and sound-powered phones along with radar, sonar and other electronic equipment to help him safeguard a ship, no system is infallible.

A low-flying aircraft may elude radar; a submarine, with only its periscope breaking the water, could slip by sonar unnoticed; or hazards to navigation—such as wood pilings or logs floating just beneath the water's surface—could go undetected by electronics.

Although lookouts are rarely remembered by name for their contributions to man's survival at sea, history has proven that it will take more than technological advances to replace the ever-watchful eye.

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$ 7.50	$ 50 Bond	5	$3.75	$ 75 Bond	5
$11.25	$ 75 Bond	5	$1.25	$100 Bond	6
$ 5.00	$100 Bond	15	$1.25	$100 Bond	12
$ 7.50	$100 Bond	10	$1.88	$100 Bond	8
$ 9.38	$100 Bond	8	$3.12	$100 Bond	6
$12.50	$100 Bond	6	$2.50	$100 Bond	5
$15.00	$100 Bond	5	$3.75	$100 Bond	4
$18.75	$100 Bond	4	$6.25	$100 Bond	3

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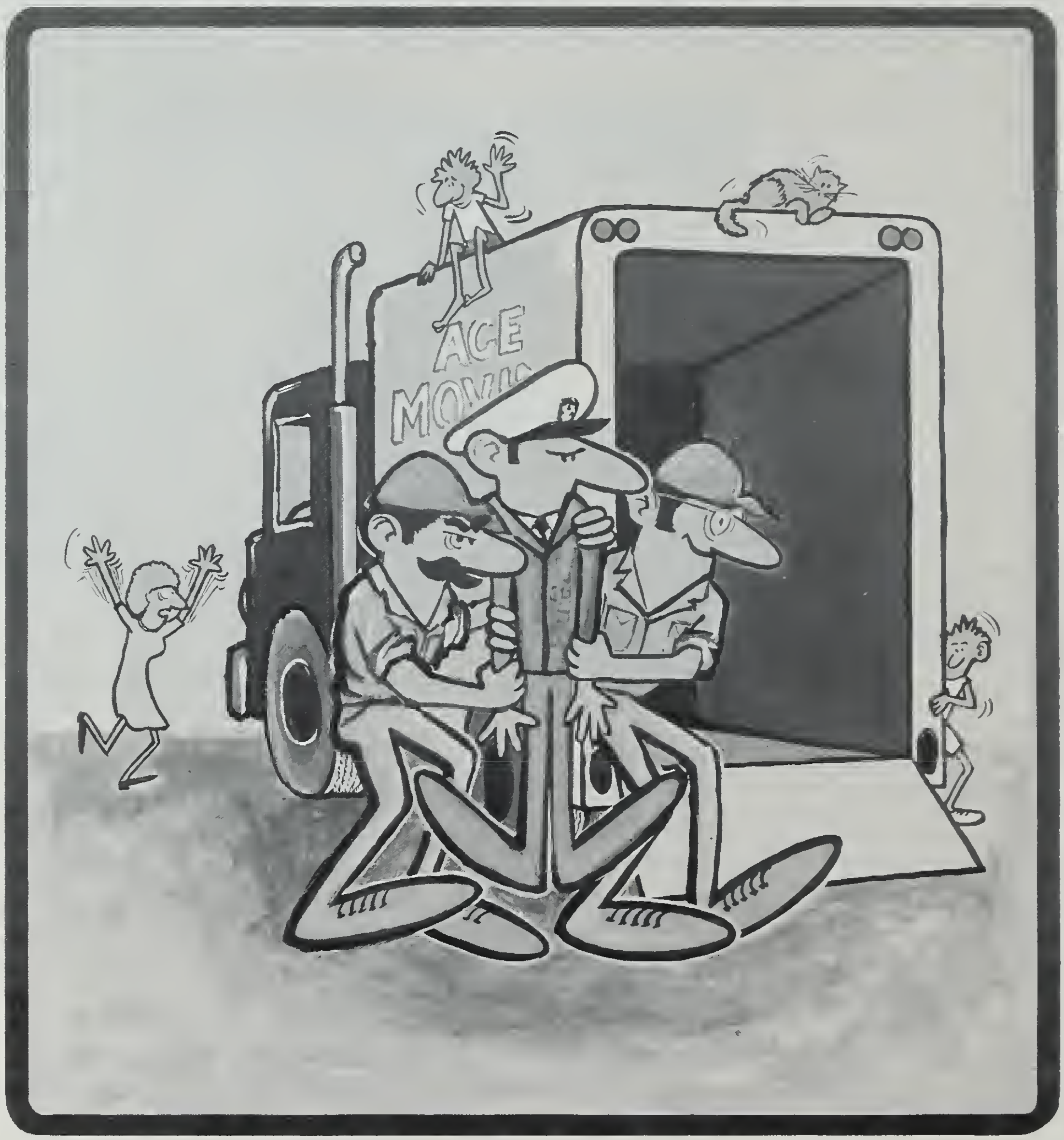
NOTHING IS CERTAIN BUT DEATH



BY JO1 JERRY ATCHISON

Back in 1789, Benjamin Franklin wrote to a friend that ". . . in this world nothing is certain but death and taxes."

An updated version for sailors might read "nothing is certain but death, taxes—and moving."

One thing everyone in the Navy can count on with absolute certainty is being transferred. Last year almost two out of every three sailors moved. That's a lot of sailors, with a lot of dependents and a lot of household effects.

Executing permanent change of station orders can be complex. Moving is important for Navy people especially when you consider that last year:

- Some Navy people had to pay—out of their own pocket—hundreds of dollars in household effects' shipping charges that could have been avoided.
- Some had to wait much longer than necessary for either pickup or delivery of their household effects.
- Others received little or no compensation for lost or damaged household effects when they could have been appropriately compensated.

TAXES... AND MOVING

The list of moving nightmares could go on and on. It could, but it shouldn't. The things each sailor should know, the steps each should take and the responsibilities each should understand can guarantee a smooth and trouble-free move.

Following are some of those things. Be warned, though, the list is far from comprehensive because the business of moving people and their household goods is a complex one. It involves contracts with commercial carriers, varying entitlements, regulations and charges. Because of this, the most important thing to remember when arranging your household goods' shipments is, go to the experts—your command's Installation Transportation Officer (ITO)—for the facts. Your well-meaning but untrained friends could cost you money.

- *Upon receipt of orders, immediately make an appointment with the ITO.* The more time you give yourself and the ITO to arrange your move; the greater your chances of having a trouble-free one. This is even more important during the summer months when transfers are at a peak.
- *You and your spouse should attend the pre-move interview together.* Since moving affects the entire family, you and your spouse should both attend. This is particularly true when the member with orders must leave for a new duty station before dependents can be moved. In addition, when it comes to asking questions, two heads are better than one.
- *You must bring the following paperwork with you for your pre-move interview:* copies of your orders (usually four copies for *each* shipment but check with the ITO); a power of attorney document or other written permission if your spouse or designated agent is arranging the move because you are unable to attend.
- *Ask questions.* If you know the answers before your move is made, chances are no unpleasant or costly surprises will be waiting at your new duty station. Some of the questions you should ask are:

How much can I ship?

Two factors govern the weight allowance of household goods and personal property you can ship at government expense: your pay grade and the location of your new duty station. Some items—professional books, papers and equipment—are not included in your weight allowance but do require special shipping arrangements.

Are there shipping limitations?

There certainly are, particularly if you are ordered to an overseas duty station. But even if yours is a stateside transfer, certain items are still unauthorized for shipment at government expense. Your ITO can show you a list of personal property items that may not be shipped at government expense and also can determine specific weight limitations or other restricted items pertaining to your overseas duty station.

Is there a time limitation?

You may usually ship your household goods any time after receipt of your change of station orders. However, time limitations may apply if you are ordered to an overseas duty station, being released from active duty or retiring.

How many shipments may I make, where?

After reviewing your orders, your personal property counselor will be able to answer this question. Because

of the previously mentioned restrictions on overseas transfer, it is particularly important for the overseas-bound member to learn what to do with those household items he can't take. This is the time to ask.

What to do before packers arrive

Dismantle TV antennas and outdoor play equipment such as swing sets; disconnect and remove window air conditioners; disconnect all major appliances; dispose of perishable foodstuffs, opened food containers which might spill or spoil, and worn-out or no-longer-wanted articles (this includes, of course, emptying, defrosting and cleaning your refrigerator and freezer); segregate professional books and equipment from the rest of your belongings; also segregate articles you intend carrying with you and high-value or easily pilferable articles, since these will be inventoried and packed separately, and remove all pictures and mirrors from the walls.

What to do when packers arrive

Once again, your ITO will provide you with a specific list of your responsibilities during the packing, inventory and loading process. Some of the important things to remember are:

- Do not pack anything yourself, unless you are willing to assume the responsibility for any damage that may result from improper packing.
- Don't sign the inventory or any other document that is not completely filled in. Verify the number of cartons the carrier indicates he has used and verify that all services he states he performed actually have been performed.

Above and Right: GOING. . .GONE. CTO2 Joe Albright, his wife and child smile before and after their PCS move— because they asked the right questions and filled out the right forms.

- Never argue with the packers or movers; call the ITO. As the government's representative, the ITO has the expertise and the legal authority to examine and, usually, solve any problems that may arise during the move.

What are the carrier's responsibilities?

The carrier's responsibilities are spelled out in the contract he signs with the federal government, and, therefore, it is to both your and the government's advantage to see that each duty is fully carried out. Since the list is long and specific, be sure to obtain a copy from the ITO.

After the move, if it was made within the Continental United States, it is very important to fill out the form evaluating the carrier's performance (MT Form 235). Within 10 days of completing the move, you should return the form to the destination ITO. This form grades the performance and is used in the award of future government moving contracts to the member's specific carrier.

Each move is unique and you will undoubtedly have other special questions about the shipment of your very special household effects. Chances are good that your personal property counselor will answer questions you never thought to ask.

Moving is a complex—and costly—business. That's why each of the military services has hired and extensively trained experts in the field. That's also why you should turn to those experts for help in making a successful move.

Few will deny that moving day is one of the most disruptive times in any military family's life. It's kind of nice to know there is a person working for you whose sole task is to take the hassle out of moving, your personal property counselor.

'Do it yourself'

If there's no way you can turn great-Aunt Agnes' 200-year-old rocking chair over to a group of strangers, you might want to consider the do-it-yourself option.

Everyone under PCS orders is eligible for this type of move. As long as it costs the government less (which it almost always does), you get to pocket the lion's share of the difference.

Basically, it works like this. Your Installation Transportation Officer (ITO) will assist you in determining what size rental truck you need, arrange for packing aids and materials and obtain an advance from the contractor for gas, oil and tolls.

For more information, talk to your ITO and see the September 1976 ALL HANDS magazine article, "Do It Yourself . . . IT'S YOUR MOVE."

Pamphlet available

One of the best ways to make sure you have a smooth and trouble-free move is to pick up a copy of "It's Your Move" (DoD Pub 380) from your Installation Transportation Officer.

It's a pamphlet of helpful hints, checklists, and solid information both you and your spouse should read before the movers knock at your door.

Your ITO has a copy of this pamphlet for your personal use and retention. Drop in and get a copy before your counseling session.

Mail Buoy

Tampions and All

SIR: I'm on my second year's subscription to ALL HANDS. It seems every issue brings back memories of my service days, May 1, 1912, to April 29, 1916.

I was very much interested in the November 1977 story about the various ships named *Texas*. The third USS *Texas* was used as a test target in 1911. She was renamed the *San Marcos* and several battleships poured 12- and 13-inch shells into her. She was a mass of twisted metal but they couldn't sink her with gunfire. They finally sent men aboard to open the seacocks and send her to the bottom.

The *Texas* that was launched in 1914 came down to the Virginia Capes during her shakedown cruise for target practice. I was on the USS *Minnesota* that towed the targets for the *Texas*. We were going east about 12 knots with the *Texas*, which was hull down to the north. She fired one shell as a ranging shot which fell 50 yards short and about 300 yards astern. She then fired a salvo of her ten 14-inch guns and hit the target right on the water line. The target was destroyed and they had to wait several hours until the Navy tug *Patapsco* came up with another target from three miles away.

I was only 15 years old when I enlisted—and got away with it. Lucky me. Now I am three months past 81 and a retired engineer off the former New York Central Railroad.

The *Minnesota* was decommissioned January 1916 and I was transferred to the USS *San Francisco*, the flagship of what was then the mine laying fleet. It was four antique ships: the *San Francisco* and the *Baltimore*—both of which were at Manila Bay with Dewey in the Spanish-American War—also the training ship *Dubuque* from the Great Lakes and the Navy tug *Patapsco*

I can't close this without a story that happened on the *Minnesota*. While the *Minnesota* was at Vera Cruz, Captain Edward Simpson was being relieved for duty in Washington, D.C., by Captain Casey B. Morgan. Captain Morgan came down from New York on the Ward Line Steamer *Morro Castle*. When *Morro Castle* came into sight, the saluting gun crew was piped to quarters. The gunner's mate and gun captain were both in sick bay so the loader and next senior member of the gun crew were put in charge. A lad named Thompson got excited and after getting the blank shells for the 12-pounders we had for saluting, he forgot to take the tampions from the muzzles of the two guns. Captain Morgan was on the Ward Liner's bridge in full uniform for the salute. When *Morro Castle* came abreast of *Minnesota*, the saluting gun crew started to fire. The tampions in the muzzle of the 12-pounders sailed at the *Morro Castle*. All the passengers and crew ducked for cover. They thought they were being fired on with live ammunition. The tampions didn't reach the *Castle* but they must have scared a lot of people—J. T. Barry, Syracuse, N.Y.

Submarine Weaponry

Sir: The answer on "Submarine Weaponry" in the "Mail Buoy" column of your December 1977 issue overlooks a submarine that seems closer to the specification of Petty Officer Mowery's letter: commissioned in the late '30s or '40s and mounting a 16-inch gun.

The *Surcouf* of the Marine Nationale of France was commissioned in 1934, and she had two eight-inchers. Admittedly the M-class 12 inchers are closer to 16, but *Surcouf* had two, and twice eight is 16. She also had a hangar for folding aircraft.

She should be memorable to Americans, because she was one of the vessels that Contre-Admiral Muselier used to rally the colony of St. Pierre et Miquelon (off the coast of Newfoundland) to the allied cause two weeks after Pearl Harbor. She was lost with all hands in a collision with an American freighter in the Caribbean early in 1942.—LT Phillip Chaplin, RCNR (Ret.).

Bull Ensign

SIR: I am currently stationed on USS *Preble* (DDG 46), homeported in Pearl Harbor, Hawaii. Our wardroom is currently trying to revitalize many naval customs and traditions onboard, among them the position of the "Bull" Ensign and "George."

We have had several inputs from the senior officers onboard but none has been able to spell out the duties and responsibilities of these traditional billets with any conclusive detail. Do you have available or know of any such documentation of these duties in the traditional jargon of the sea or if there has ever been such a record?—Ensign Robert A. Reese, USN.

- *Your request stumped us completely. We've "shopped" this question before but, then as now, we can't come up with information on the tradition. Does anyone out there have an answer for Ensign Reese?*—ED.

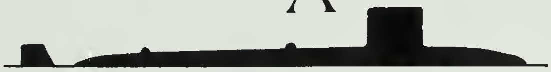
Reunions

- *115th Naval Construction Battalion Veterans* (WWII)—Reunion 27-30 July 1978 at Indianapolis, Ind. Contact Edward C. Plummer, 5023 East Naomi St., Indianapolis 46203.
- USS *North Carolina Battleship Association*—Reunion 27-30 June 1978 aboard the ship in Wilmington, N.C. Contact Alton H. Starling, 9047 San Jose Blvd., Apt. 514, Jacksonville, Fla. 32217.
- USS *LST* 272—Reunion in spring of 1978 in Lexington, Ky. Contact G. D. Drake, 203 Park Ave., Monticello, Ky. 42633.
- USS *Idaho* (BB 42) Assn.—Reunion, summer of 1978 in San Diego, Calif. Contact David C. Graham, P.O. Box 11247, San Diego, Calif. 92111.
- USS *Ticonderoga* (CV/CVA/CVS 14)—Reunion 2-7 May 1978 at Embarcadero, San Diego, Calif. Contact Robert Hutton, 520 Walnut Ave., Magnolia, N.J. 08049.
- *Bomber Squadron 85*—Reunion planned for former members of this squadron which served on USS *Shangri-La* (CV 38). Members who served from May 15, 1944 to Sept. 2, 1945 contact Ralph R. Matteson Jr., 15 Eldridge Ave., Warwick, R.I. 02886.
- USS *James E. Craig* (DE 201)—Reunion on Labor Day-weekend, 1978, in Schenectady, N.Y. Contact Ray lafrate, 1310 Lark St., Schenectady, N.Y. 12306.
- USS *Wasp* (CVS 18)—Reunion 23-24 June 1978 in Randolph, Mass., for all officers, shipmates, air groups, and marine detachments. Contact Allyn (Flash) Gordon, Milton Post Office, Box 471, Milton, Mass. 02186.

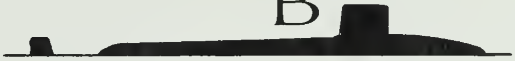
Stern Shots

Ship recognition classes are held during the first few weeks of naval service and continue off and on through one's career. In this brush-up quiz (taken from Jane's Fighting Ships), how many of the U.S. submarine classes shown below can you identify correctly?

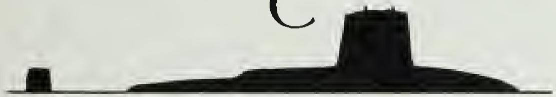
A



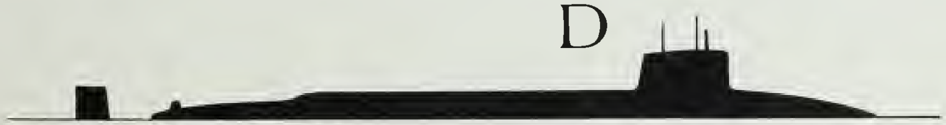
B



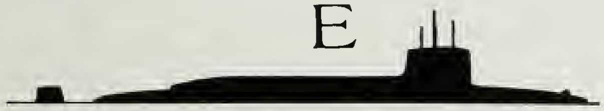
C



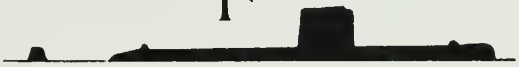
D



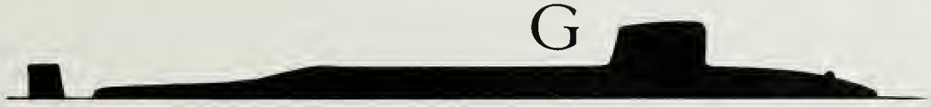
E



F



G



Answers: A — Sturgeon class; B — Permit class; C — Skipjack class; D — Ethan Allen class; E — George Washington class; F — Skate class; G — Lafayette class.

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THE NAVY HAS IT ALL TOGETHER IN WASHINGTON STATE

ALL HANDS

JUNE 1978

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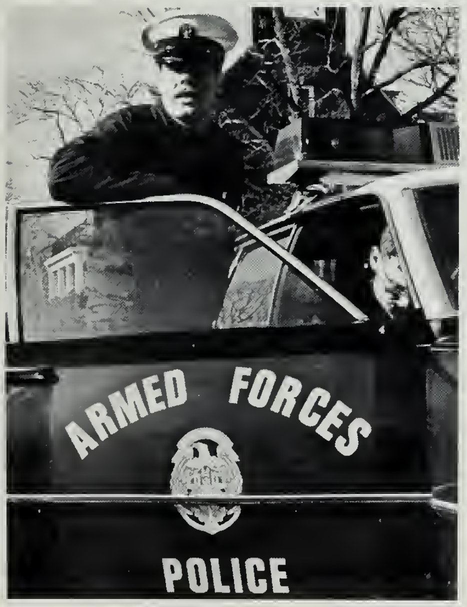

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JUNE 1978 NUMBER 737

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Covers

Front: Recruits in formation at Orlando, Fla. Photo by PH1 Terry Mitchell. See page 10.
Back: Artist Audie Bransford, an employee of the Long Beach Naval Shipyard, depicts highlights in the career of Commodore David Porter.
At left: SA John Groh and SR Donald Pfouts were among the first in the Navy to wear new service dress whites when their ship, USS Boulder *(LST 1190), paid a call at the Washington Navy Yard in early May. Photo by JO1(SS) P. Sundberg.*

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JO1(SS) Pete Sundberg
PH1 Terry Mitchell
JO2 Davida Matthews
JO2 Dan Wheeler
Edward Jenkins
Elaine McNeil

Currents

First Trident Submarine Unveiled ● *Ohio,* first of the new *Trident* missile-firing submarines, was unveiled April 22 at General Dynamics' Electric Boat shipyard in Groton, Conn. The largest submarine ever built, *Ohio* was moved out of the covered assembly building at the shipyard onto a waterfront pier where it will undergo final assembly and testing. When completed, *Ohio* will have a submerged displacement of 18,750 tons and carry 24 *Trident* missiles, each with a range of 4,000 miles. *Ohio* is scheduled for launching in 1979.

Traditional Uniform Returns to Navy ● Traditional jumper-style uniforms again appeared on Navy ships and shore stations in early May as the fleet evaluation of jumper-style uniform fabrics got underway. The move is the result of a decision made by Chief of Naval Operations Admiral James L. Holloway III to return to the jumper-style uniform for E1-E4 personnel. Selected fleet units participating in the one-year evaluation now are receiving the uniforms. Other E1-E4 assigned to sea duty but not selected for the fleet evaluation are authorized to purchase the service dress blue jumper uniform through the Navy Exchange system. Other E1-E4 male personnel on shore duty, including reservists, will be eligible to purchase and wear the service dress blue jumper uniform on Aug. 1, 1978, as inventories of uniforms increase. Purpose of the fleet evaluation of new fabrics for the uniform is to check for easy care maintenance qualities before final fabrics are selected. Guidance for wearing the jumper-style uniform is contained in BUPERS Notice 1020 of March 22, 1978.

Proficiency Pay for Recruit Company Commanders Increased ● Special duty assignment (proficiency) pay for recruit company commanders will be increased effective Oct. 1, 1978, from the present $50 per month to a maximum of $100 per month. The proficiency pay increase, which also affects Marine Corps drill instructors, is as follows:

0-6	months' tenure – $50 per month
6-12	months' tenure – $75 per month
Over 12	months' tenure – $100 per month

At any given time, approximately 70 percent of recruit company commanders have accrued over 12 months' tenure which will make them eligible for the maximum $100 rate of proficiency pay.

BUMED Guidance on Asbestos-Related Health Problems The Navy, in cooperation with the U. S. Department of Health, Education and Welfare, is attempting to notify Navy people, military and civilian, who may have been exposed to airborne asbestos that such exposure presents a health risk. In recent years, it has become known that inhalation of airborne asbestos fibers can lead to serious health problems. Dangerous levels of invisible asbestos fibers can be created whenever asbestos is cut, milled or processed unless strict safety precautions are observed. According to recent guidance issued by the Naval Bureau of Medicine and Surgery, current Department of the Navy civilian employees, their relatives or their designated representatives who wish to file compensation claims as a result of asbestos exposure should contact the Navy Office of Civilian Personnel (OCP). Former civilian employees who wish to file should contact the U. S. Department of Labor, Office of Workers' Compensation Programs, Federal Employees' Compensation Section. Claims of active duty personnel will be processed through the Navy disability evaluation system. Former or retired military personnel should file with the Veterans' Administration. Present and former contractor employees should file with the U. S. Department of Labor, Office of Workers' Compensation Programs, Longshore and Harbor Workers' Compensation Section, or the State Workmen's Compensation Authorities, as appropriate.

NRL Seeking Long-Range Communication System ● Scientists at the Naval Research Laboratory (NRL) are investigating whether neutrinos – minute particles capable of penetrating enormous amounts of matter – can be harnessed to transmit data directly through the earth. Neutrinos originate in the upper atmosphere, sun and stars and are believed to continually bombard the earth. By utilizing specialized detector systems, researchers can detect the passage of neutrinos through matter. Neutrinos now can be man-made and can be transmitted as very narrow beams of high energy to increase significantly the chances of their detection at long range. Because of the neutrino's unique penetration properties and presently available detection methods, global communication by man-made neutrino beams appears feasible in the future. NRL is pursuing a study which could lead to the construction of a large detector system for sensing and recording the passage of man-made neutrinos over large distances.

Veterans' Education Assistance Program Update ● More than 15,000 naval personnel are participating in the Veterans' Education Assistance (VEA) program started in January 1977 as a replacement for the old GI Bill which was discontinued for personnel entering the Navy after Dec. 31, 1976. Navy participation is almost one-third the total of all the Armed Forces combined. Under the VEA program, the government provides two dollars for each dollar invested by individual service members which can be used in the future to attend college or vocation-technical school. For example, a service member who elects to have the maximum deduction from his pay of $75 monthly over a three-year enlistment would receive $8,100 for tuition – his $2,700 contribution plus $5,400 added by VA. The full $8,100 would be paid in installments of $225 for each month of full-time higher education completed. If the veteran decides not to use his education benefits after leaving the Navy, he can receive all the money he contributed but not the VA's portion. Participants can receive tuition payments after completion of the first period of obligated service or six years of active duty, whichever is less.

CNO REPORT

The following excerpts are from the Navy's FY 79 Budget and Current Posture Report prepared by Chief of Naval Operations Admiral James L. Holloway III. He delivered it to Congress in February and in it describes where the Navy is today and where it needs to go to maintain maritime superiority. The report is also a policy statement which describes the Navy's role in implementing national military strategy, its mission, functions and responsibilities. It is intended for reading by all officers and senior petty officers and for use as a year-round basic policy reference document.

A. STRATEGIC PRINCIPLES

The national strategy of the United States is significantly influenced by this nation's insular position on the North American continent. Because geopolitical considerations dictate a forward strategy which uses the oceans as barriers for defense, as military lines of communication, and as world trade arteries, national security cannot be assured without a balance of maritime superiority residing in favor of the United States and its allies. The United States Navy is the principal force required to achieve and maintain the maritime superiority upon which the nation depends.

B. MISSION

The United States Navy's primary mission is to be prepared to conduct prompt and sustained combat operations at sea in support of our national interests. This means keeping open the sea lanes of the world, supporting treaty agreements, and maintaining a nuclear strike capability as a deterrent to nuclear warfare. The Navy must be able to deter or counter adventurism on the part of potential adversaries through continued maritime superiority. It must be able to defeat potential threats to continued free use of the high seas by the United States.

C. FORCE REQUIREMENTS

An orderly planning process for the development of naval force requirements is an essential basis for the Navy's continued capability to fulfill its responsibilities in support of the national interests. This disciplined and carefully developed process is based on strategy, threat, and risk.

1. Strategy

The national military strategy which the naval force structure will be called upon to support;

2. Threat

The military force and weapons technology which the naval force structure will encounter in fulfilling its roles within the national military strategy; and

3. Risk

The degree of assurance that the Navy can successfully fulfill its roles in support of the national military strategy.

D. NAVAL CAPABILITY

There are four distinct elements of naval capability which, in their aggregate, provide the total force capability of the Navy:

1. Force structure

The numbers and types of organized units, active and reserve, of operating ships (or craft) and aircraft, and the facilities of the supporting base infrastructure.

2. State of Modernization

The level of weapon system technology reflected in the components of the force structure.

3. Readiness

The degree to which the operating units in the force structure are capable of performing the tasks for which they were designed and organized.

4. Sustainability

The ability of operating units to continue to conduct naval operations over extended periods.

E. FUNCTIONS

The Navy's two basic functions are sea control and power projection. The ability to perform these functions is a requirement if the United States is to use the seas to support its national policies and to defeat the forces of any state that would seek to deny such use.

1. Sea Control

Sea control is the fundamental function of the U.S. Navy and connotes control of designated sea areas and the associated airspace and underwater volume. It does not imply simultaneous control of all the earth's ocean area, but is a selective function exercised only when and where needed. Sea control is achieved by the engagement and destruction of hostile aircraft, ships, and submarines at sea, or by the deterrence of hostile action through the threat of destruction.

2. Power Projection

As an independent function, power projection is a means of supporting land or air campaigns, using capabilities designed for naval tasks. Power projection covers a broad spectrum of offensive naval operations, including strategic nuclear response by fleet ballistic missile forces, employment of carrier-based aircraft, amphibious assault forces, and naval bombardment with guns and missiles of enemy targets ashore in support of air or land campaigns.

F. ROLES

In the functional exercise of its mission responsibilities within the national military strategy, the U.S. Navy has three main roles:

1. Strategic Nuclear Deterrence

The effectiveness of the submarine-launched ballistic missile combined with the virtual invulnerability of the SSBN provide the strongest deterrent in our strategic nuclear forces and thus are a stabilizing factor in the strategic nuclear balance.

2. Overseas-Deployed Forces

The Navy provides operationally ready naval components of overseas deployed U.S. forces to support allies and protect U.S. interests. These fleet elements are deployed to locations where they can engage hostile forces at the outbreak of hostilities and rapidly support forward-positioned U.S. ground and air forces, as well as U.S. allies.

3. Security of the Sea Lines of Communication

The success of a forward military strategy depends upon the Navy's ability to maintain the integrity of the sea lines of communication between the United States and its forward-deployed forces, its allies, and those areas of the world essential for the supply of imports.

G. RESPONSIBILITIES

In order to assure its continued capability to carry out the roles prescribed by the national military strategy, the Navy has two principal and distinct responsibilities:

1. Current Fleet Readiness

This refers to the capability of naval forces to carry out their roles in prompt response to the National Command Authorities. Current fleet readiness depends upon:

a. Maintaining the numbers, skills, and experience of personnel.

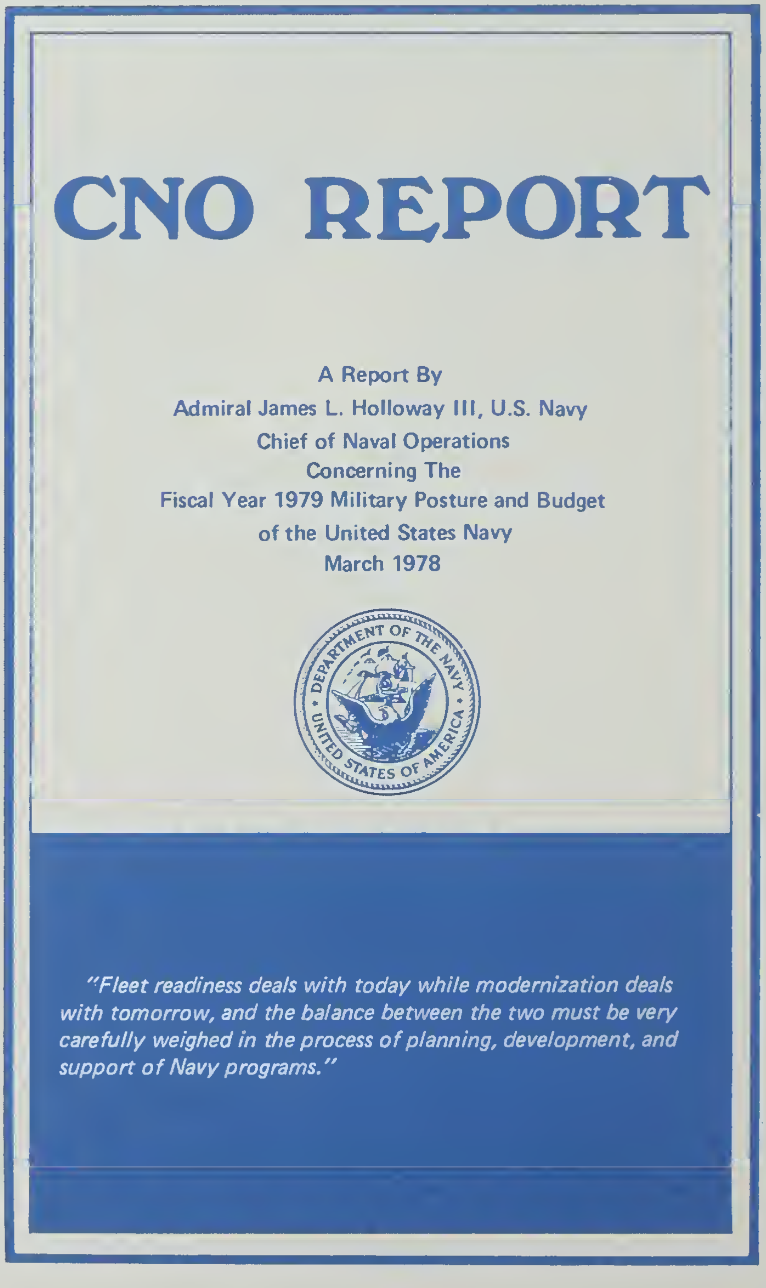
b. An efficient and effective logistic support structure to provide higher material readiness and sustainability.

c. A training program to achieve the most effective use of current sensor and weapon systems and platforms.

2. Future Force Capabilities

The future force capabilities of the U.S. Navy are mainly influenced by the projected force structure (numbers and types of units) and state of modernization (the level of weapon system technology incorporated in the force structure). Future force capabilities depend upon:

a. Weapon system development and procurement to provide naval



CNO REPORT

A Report By
Admiral James L. Holloway III, U.S. Navy
Chief of Naval Operations
Concerning The
Fiscal Year 1979 Military Posture and Budget
of the United States Navy
March 1978

"Fleet readiness deals with today while modernization deals with tomorrow, and the balance between the two must be very carefully weighed in the process of planning, development, and support of Navy programs."

ships and aircraft with the most modern weapons technology available.

b. Aircraft acquisition to maintain or increase force structure and to maintain a high level of force modernization.

c. Ship construction to maintain, increase, or adapt force structure to changing requirements or projected threats.

H. PERSONNEL READINESS

The Navy is continuing, as a matter of top priority, its efforts toward improving personnel readiness. It is important to keep enough people with the right skills to operate and maintain the ships, aircraft, and weapon systems in the fleet as well as to man the supporting shore establishments. As ships, aircraft, and other weapon systems become more sophisticated and complex, there is an increasing need for more technically trained personnel in the fleet. An expedient way of keeping the fleet properly manned has been the Fleet Readiness Improvement Program. This program, as a "quick fix" measure, has maintained manning levels at sea at approximately 100 percent since June 1976. However, a shortage of essential mid-level supervisory personnel at sea still exists. Moreover, to achieve full manning at sea it has been necessary to man some shore billets at less than 90 percent.

1. Recruiting

The Navy fell about 5,000, or five percent, short of the 116,000 new recruits required to attain the approved enlisted end strength for FY 77. This was the largest annual recruiting target since the advent of the All-Volunteer Force. With a 15 percent lower requirement for new recruits in FY 78, there is a greater potential that quotas can be met. However, with numbers of male high school graduates limited, unemployment decreasing, and industry, colleges and other military services recruiting in the same limited market, recruiting poses a formidable challenge. A conscious decision has been made to attain quality recruits even at the cost of sacrificing quantity, if necessary. The Navy intends to hold to established quality standards, while reducing requirements for new male recruits through such measures as using more women, increasing civilianization of military positions, and reducing attrition.

With respect to officer procurement, accession plans were met for all officer communities with the exceptions of physicians where only 44 percent of the required 776 accessions were attained, and the nuclear power program which fell 116 accessions (18 percent) short of plan.

2. Retention

Although 96 percent of the established goal for entry into the career force was attained through first-term reenlistments in FY 77, severe reenlistment shortages occurred in about 35 percent of Navy enlisted ratings. These are primarily in the critical sea-going ratings. However, the failure to attain second-term reenlistment goals is of greater concern. These are petty officers with eight to 12 years of service and their reenlistment is necessary to sustain the career force. Such reenlistments in FY 77 were only 79 percent of goal, and about half of the enlisted ratings were seriously affected. There was also a slight decline in the retention of petty officers eligible for third-term and beyond reenlistments. This has resulted from about five percent higher-than-planned transfers to the Fleet Reserve. However, the number of reenlistments remains sufficient to meet Navy's needs for these supervisory personnel.

The U.S. Navy either has or will have significant retention problems in some specific officer communities. The Surface Warfare Officer retention rate is projected to remain constant at about 35 percent. Due to low accessions in FY 73 and FY 74, deficits are foreseen through FY 80. However, recent increasing resignations may be a forewarning of a decreasing trend in retention rates.

Pilot retention is currently on the downswing due to airline hirings. Significant retention deficits are projected, commencing in FY 79. The wide variation in pilot retention, the long lead time required to train a combat ready pilot, and the expense of training a pilot make this a major area of developing concern in officer retention. In contrast to their Naval Aviator squadron mates, Naval Flight Officer retention is at about the desired level and is projected to remain stable.

Nuclear submarine retention stabilized in FY 77 after declining continually since FY 73. Still well below desired goals, retention is projected to increase slightly in FY 78.

I. RISK ASSESSMENT

The U.S. Navy currently holds the advantage in the naval balance, although by only a slim margin of superiority over the Soviets in some scenarios involving the most vital U.S. national interests. In the event of conflict, the United States could probably retain control of the North Atlantic sea lanes to Europe, but would suffer serious losses to both U.S. and allied shipping in the early stages. The Navy's ability to operate in the eastern Mediterranean would be uncertain at best. If Pacific Fleet assets were to be shifted to the European theater in a NATO conflict, the U.S. forces remaining in the Pacific would be sufficient to protect the sea lanes from the continental United States to Hawaii and Alaska, but only the military lines of communication to our allies in the western Pacific.

The United States was clearly the dominant naval power in the world 15 or even 10 years ago. Today that is no longer true. The Soviet navy currently has the capability to challenge the U.S. Navy in many ocean areas. If the trends that brought this major change are allowed to continue, the balance of maritime superiority could tip in favor of the Soviets in the next 10 years. Since it takes an average of at least five years for a unit authorized for construction to become operational, the United States must begin now to build the requisite number of ships and aircraft if it is to maintain the advantage necessary to accomplish its sea control function and retain its current slim margin of superiority at sea. ⚓

ONE STEP AT A TIME

Tom Harper's Greatest Battle

BY ELLEN TERNES AND
LCDR GORDON PETERSON

Tom Harper's days as a Naval Academy midshipman are over this month. He joins his classmates in the commissioning oath, the hat toss, and the start of a Navy career in the Supply Corps.

Five years ago Navy doctors gave him three months to live. If you look at the 24-year-old today, you'd never guess he was once so weak from cancer that he couldn't walk up a flight of stairs without stopping to rest.

Back as a plebe—in 1973—Coach George Welsh felt Tom was a brilliant, tight end prospect. He made the varsity squad and planned to travel with the team to Ann Arbor for a contest with Michigan. He never made that trip.

The day before the game, Harper went to National Naval Medical Center in Bethesda, Md., to check out a swelling in his abdomen. He was operated on the same night—cancer had already spread to his stomach and lungs. Within a week, rigorous regimen of chemotherapy began.

Radiation treatment followed with two minutes of exposure on both sides of his abdomen and chest. Every 28 days there was the agony of five days of double treatment. By the end of the fifth day he was so sick he couldn't move—but he knew he had another 28 days' reprieve before the devastating double treatment began again.

As a dedicated group of Navy doctors worked with new drugs to cure him, Harper began his own recovery program.

"They told me on my birthday—Dec. 12, 1973—that I would be able to come back to the Academy," Tom recalls. "It was a great day. One of my first thoughts was—well, that's one step. Then I thought I'd be playing football."

He made that statement without full knowledge of the effects the disease would have on his body.

Becoming a walk-in patient, he left Bethesda for Annapolis and moved in with an assistant football coach, Commander Earle Smith. CDR Smith's wife, Carol, had recovered from her own bout with cancer several years earlier. The Smiths, along with George and Sandra Welsh, drove him to Bethesda regularly for treatment.

Radiation sessions ended in May of 1974, but chemotherapy continued. Long past the initial three-month prognostication of his doctors—in Au-

President Jimmy Carter presents the American Cancer Society's Courage Award to Academy Midshipman Tom Harper. Attending the White House ceremonies on April 6 were Dr. Wayne Rundles (left), ACS President; and Harper's parents, Mr. and Mrs. Jackson Harper.

gust 1974—Harper began his second plebe year at the Academy.

As treatment progressed, Tom countered brutal side effects of powerful drugs with a demanding routine of physical fitness. Wracked with pain, he pushed himself to the point where he could even work out with the football team.

On the first day of exercise, he had to sit down after walking 100 yards. After a weight loss of 50 pounds from his 225-pound frame, there were days when he could barely walk down the hallways for classes.

Still, he wanted to play football. "I was determined that I would play again," he said. "I thought I could play the '75 season—I still did, right up to a month before the last game. I even worked out a schedule where I would play, missing just two games because of chemotherapy treatments."

Perhaps it was football that kept Harper going. "My ultimate dream was to play football," he said, "to be able to talk about my comeback. If it didn't happen, I wouldn't have a story to write."

Back at the Academy, his running continued—first the length of the football field, then the perimeter of the practice area. "I tried a quarter mile and got to the point where I would be ecstatic—I could run all the way around the track," he related. "I'd ask people to watch."

Players on the football team, the coaching staff, Tom's company officer, faculty, classmates—all offered support. But there was misunderstanding as well. Some people would never know of the debilitating effects of his treatment—the nausea, the fatigue, the painful case of shingles that made every step an ordeal.

Tom recalls that when the drives to Bethesda began, he and the normally reserved Coach Welsh had little to say. As time went on, the player and coach developed a close relationship. Welsh inspired Tom during the grueling workouts. "Every time I'd see Welsh I was psyched," Harper said. "I'd go out, he'd be looking, and I'd keep going."

All the time Harper continued to go to class. "I would be tired by the time I got there," he said, "but I figured that if I received poor grades, they'd know I couldn't make it, so sometimes I would go to class right after chemotherapy. Then I noticed an improvement. Some days I'd walk to Chauvenet Hall and wouldn't be breathing hard."

The two years of chemotherapy were nearly over in 1975. There were many occasions for prayer during his recovery, and on the final day of treatment Tom sat for a long while in the Naval Academy Chapel. In retrospect, he describes the last chemotherapy session as "a piece of cake."

Tom will tell you that he never played football again. That's not the full story. In the spring of 1976 he suited up for spring practice.

"I remember sitting in the huddle and not even hearing the play—just looking around and thinking—Hey, I can't believe I'm here. I'd run through plays and it would bring back a memory of when I last played. I made a few good catches and it made me feel good to hear the guys say 'nice catch.' "

Midshipman Tom Harper leads Bill the Goat across the gridiron at Navy-Marine Corps Stadium in Annapolis, Md., in 1976.

But it was difficult to erase the effects of cancer. The years of treatment had cut his strength and natural reaction.

His limitations became more apparent, however. He noticed that he was falling behind in comparison to his teammates. He went home on leave that summer, continuing workouts at San Mateo, Calif. "I worked out with my high school team, and they just destroyed me. I was tired but I was disappointed that I didn't play as well as I thought I would."

Still, disappointment didn't bring defeat. Harper returned to Annapolis for his senior year in the fall and joined the staff as an assistant football coach for the junior varsity team. He enjoyed working with the younger players—calling the defense in practice and suggesting an occasional play at game time.

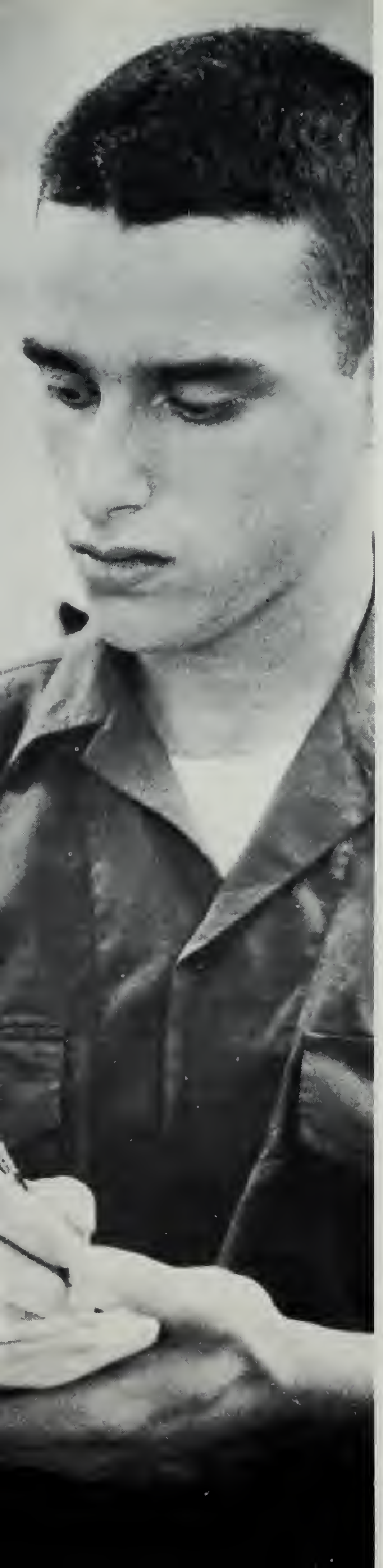
During the past two years he has devoted a great deal of his spare time to helping other cancer patients. He has appeared at events sponsored by the National Cancer Society to share his story.

On April 6 this year, President Carter presented Tom Harper with the American Cancer Society's Courage Award in a ceremony in the Oval Office of the White House. A special honor, it is given to those whose personal battle against cancer offers hope and inspiration to all.

Tom's recovery came as a surprise to almost everyone, except himself. Those who know him best, including Coach Welsh and his doctor, attribute the recovery to his spirit and refusal to give up.

Captain Elliott Perlin (MC), the medical officer in charge of his treatment at Bethesda, provided testimony to that courage. "In oncology," he reflected, "we sometimes have success; more often, failure. It's a person like Tom who keeps us going." ⚓

GRAHAM



THEORY BECOMES ON·THE·JOB REALITY

BY JO2 DAN WHEELER
PHOTOS BY PH1 TERRY C. MITCHELL

Eighty-four youthful men wearing Navy-issue tennis shoes and dungarees with rolled-up cuffs sit on the deck listening to a Navy chief. The room is silent except for his voice, yet the recruits lean slightly forward, intent on hearing every word. Most will remember their company commanders' (CC) opening remarks for a long time.

"I am Senior Chief Petty Officer Hair and this is Chief Petty Officer Jenkins. We are your company commanders. While you're here at Recruit Training Command, Orlando, we're responsible for every phase of your training. During the next few days we'll be teaching you more than you think you're able to absorb. You might start thinking about seeing the chaplain or someone else. Before you do, come to your company commanders. We're here to answer your questions and help you solve your problems."

Senior Chief Storekeeper R. A. Hair nods to Chief Aviation Boatswain's Mate (Fuels) J. T. Jenkins who steps forward. While SKCS Hair was talking, Chief Jenkins was observing the recruits' reactions and making mental notes.

"Right now, about 75 percent of you are homesick. Some of you want to curl up in a corner and cry. A few want to go over the fence and hightail it home. Let me tell you something, gentlemen, it's the wrong thing to do. You may think you're the only man who feels that. You're not. Each of you is adjusting to an environment very different from any you've experienced."

Already, they've learned that. Most have been in the Navy for less than a week. They rise before dawn, march as a group, follow orders and say "yes, sir" instead of "OK." Each has passed a swimming and a physical fitness test. Since the day they were inducted, they've had little

Part of a company commander's job is making sure recruits pay attention and absorb the day's lesson. CCs raise their voices only to get the recruit's attention.

free time. Even the night owls welcome the relief of 9:30 p.m. taps.

"While you are here," continues Chief Jenkins, "the senior chief and I are going to tell you exactly what to do and when to do it. We'll tell you when to go to bed and when to get up; what to wear and how to wear it. We will teach you how to tie your shoes, shave and even wash. If you want to leave RTC with this unit, you'll learn to accept this. You joined. No one forced you. If you pay attention and give 100 percent all the time, you will walk through RTC's gates eight weeks from now as sailors in the world's finest Navy."

The first step of a slow transition is over. Each recruit knows his CCs and understands their function. He knows what the Navy expects of him. In the weeks to come, he will learn to depend on his company commanders for guidance. Throughout his Navy career, he'll draw on lessons learned while at RTC.

"The purpose of basic training is to effect a smooth transition from civilian to military life," said Senior Chief Signalman T. R. Miller, the leading chief of Military Training Area One. "We don't train recruits to be professional sailors right away; we give them basics and build from there. That's the company commander's main job."

Men and women are trained in Orlando. Training for women is identical to that for men with one notable exception: at present, female training units have only one company commander.

"To be an excellent company commander," LCDR B. F. Beil says, "you have to care about recruits . . . and use every bit of experience gleaned over a Navy career to turn each civilian into a sailor."

"Having two CCs doesn't necessarily mean less work," Senior Chief Miller said. "It means that, as a team, two CCs give recruits twice as much individual attention. Perhaps in the later stages of training, they can split the work and go home early, but there is always something extra a conscientious CC wants to do."

Whether male or female, a CC's day begins around 5 a.m. The first week with a new unit is spent teaching the recruits how to fold and stow clothes, clean a compartment and make a bed. Week two is spent reinforcing the first week's lessons and adding more basics.

During the first hectic weeks, a CC squeezes in teaching time whenever possible. Training units don't stay with their CCs except during scheduled periods of CC instruction. Recruits attend classroom sessions in which they are taught practical factors of Navy life such as rank structure, UCMJ and damage control. There are dental and medical appointments and administrative work to complete. CCs have little time allotted during the day for one-on-one unit training, so the hours between evening chow and taps become school call. Few CCs leave RTC before 9:30 p.m. during the first three weeks and all consider Saturdays the ideal time for teaching drill.

In spite of long hours and what some term "arduous shore duty," people do volunteer for the duty. "I volunteered to get experience in leadership," said Aviation Maintenance Administrationman 2nd Class Carolyn H. Mischke, a CC who has "led" six units. "I also thought—since I complained a lot about the quality of recruits these

days—I could help the Navy by getting in on the initial phases of training."

Most don't volunteer, they're selected. "Sure, it's a tough job," said Senior Chief Communications Technician (Collection) P. E. Zetterholm, "but our philosophy is 'How many ships or duty stations have you volunteered for?' You went where you were sent and you always did a good job. That's why you're a senior petty officer now."

Being a company commander is unique. "It's rare for an enlisted per-

Top: A recruit's "eye view" of his CC. Bottom: When a CC looks like this, you can bet he's unhappy.

son to have autonomous control over 80 or more sailors and to have the weight of responsibility such control entails," Senior Chief Zetterholm said. "In the fleet, a chief or first class petty officer may have a number of subordinates, but they also have work center supervisors and experienced petty officers to lessen the load. At Orlando, each CC exercises direct control over an entire training unit with some support down the recruit chain of command within the unit."

For that reason, every CC selected has been carefully screened for leadership ability, emotional makeup and a number of other factors considered essential for success (see accompanying article on page 18).

Following initial interviews and evaluations, prospective CCs are sent to Instructor Training School. From there, they go to a four-week Company Commander School where they learn to train recruits.

"When training recruits," said Senior Chief Zetterholm, who's division officer for the Staff Training Division, "you have to approach instruction as if you were teaching a first-grader. You have to be that specific. You are essentially teaching civilians who know nothing about the Navy except 'It's not a job, it's an adventure'. "

After school, each company commander "shadows" an experienced CC for approximately 10 days to learn how classroom theory translates into on-the-job reality. "Before I attended the school and shadowed, I wondered if I could do the job and I was afraid I couldn't," said Machinist's Mate 2nd Class G. W. Buck. "By the time I'd finished all that, I was itching to pick up my own unit."

Having been taught that the first impression made when meeting a new

THROUGH THESE PORTALS
PASS THE WOMEN OF THE
GREATEST NAVY ON EAR

unit can materially affect the success of eight weeks of training, MM2 Buck carefully planned his entrance. "You don't walk in anymore and kick the trashcan to get their attention. You want to impress them as a professional. I even got an extra close trim from the barber about two hours before I met the unit, just to be sure.

"When I walked into the barracks and saw them, I couldn't do anything but smile for the first few minutes," he said. "I knew my first words were important. I had all this knowledge I had to teach and I wanted to do it right."

"Doing it right" is the key.

To a recruit, each company commander is the Navy. Experience has shown company commanders embody everything recruits expect professional Navy people to be. For example, when a recruit was asked about his first impression of his CCs, he said, "When I first met them, I didn't like the Navy. They came on kinda hard and I thought the Navy was going to be a bad experience." His opinion changed.

Due to the close environment, a CC can actually affect a recruit's outlook and mannerisms. "They imitate you," AZ2 Mischke said. "If I'm happy, they're happy; if I'm tired, they're tired. Everything I do is, in some way, reflected in them so I practice leadership and motivation by example."

Senior Chief Zetterholm provided another example. "It's funny," he said, "if we have a CC with an unusual way of walking, you can spot his training unit at a glance—they will all unconsciously mimic their CC's gait."

Fully aware of their effect on each person in their training unit, company commanders judge their personal success by how well their recruits fare later in the fleet.

That sense of personal responsibility motivates CCs to spend the hours necessary to do the job well. "When I put a recruit out of that gate," said Senior Chief Boiler Technician T. L. Hutton, "I'm sure he or she knows at least as much about the Navy as I can possibly teach in the time allotted."

"To be an excellent company commander," said Lieutenant Commander B. F. Beil, military training officer, "you have to truly care about recruits you're training. If a CC is motivated to provide excellent recruits—someone he would proudly serve with—he will use every tool available at RTC and every bit of experience gleaned over a Navy career to turn each civilian into a sailor."

Though there are satisfying aspects of being a CC, LCDR Beil and Senior Chief Miller are directly involved in one of the less pleasant jobs at RTC—dealing with young men and women who are not performing well. Initially, performance of "problem recruits" is observed and documented by their company commanders who use counseling, punitive exercises, appeals to pride and individual instruction to turn a recruit around. If that fails, the recruit is sent to the military training office.

"Most of the recruits we see in here are disciplinary problems," Chief Miller said. "They've tasted Navy life and decided, after less than a week,

Left: A CC reaches for his pen while a nervous recruit waits. Right: Sometimes it takes one-on-one instruction to ensure that individual recruits understand the difference between their "exactly" and the Navy's "exactly" when it comes to folding clothes.

that they don't like it. Part of a CC's job is identifying which are worth turning around and which, if forced to stay in the Navy and complete training, would be a detriment to the service."

"Sometimes, this decision—to keep a recruit or discharge him—proves a source of frustration for CCs," LCDR Beil said. "When they first joined the Navy, some of our CCs wanted to quit too, but someone said 'Hell no!' and made them stick it out. Now they're professional Navy men and women."

There are rewards. "If you get one recruit turned around and see him graduate—one out of hundreds that stood before your desk—that's satisfying," Senior Chief Miller said.

"They copy you," AZ2 Mischke says. "If I'm happy, they're happy; if I'm tired, they're tired."

SO YOU WANT TO BE A CC?

Navy men and women who think they have what it takes to be a company commander (CC) can find out by consulting the Enlisted Transfer Manual (NAVPERS 15909B, chap. 10).

Instructor billets for CCs at the Recruit Training Commands are written for petty officers E-5 and above. Enlisted men and women selected for CC duty must be mature, stable and motivated. They must be temperamentally suited to train young people and fully capable of maintaining control of their emotions in stressful situations. Additionally, petty officers selected exemplify the highest military and personal standards.

A guaranteed three-year shore duty tour, up to $100 per month special duty assignment (SDA) pay and guaranteed reassignment for a select few are some of the benefits available to a company commander.

Ideally, company commander billets are filled by volunteers. But whether a company commander is a volunteer or not, the petty officer must possess these specific qualifications:

- Leadership ability. In daily routine, potential CCs must continuously exhibit ability to motivate subordinates and secure confidence of superiors.
- Clean record. There must be no conviction by courts-martial, civil court (except for minor, non-repetitive traffic offenses), or non-judicial punishment awarded by captain's mast within the previous five years. Waivers may be granted only in cases of minor offenses.
- Ability to articulate clearly. Potential CCs should be articulate—able to communicate thoughts clearly and logically. Additionally, they shall have no speech impediment or pronounced accent which would detract from performance as an instructor.
- Ability to work with others.
- Ability to exercise sound judgment.
- Military bearing and deportment. Potential CCs shall not have a history of severe domestic or personal problems, no record of chronic indebtedness, or a record indicating excessive use of alcohol.
- No mark in performance evaluations less than SUU (superior to most, upper) within 36 months prior to consideration for selection. Waivers may be granted upon recommendation of commanding officers.
- Physically qualified to drill and keep pace with recruits. A medical officer evaluation is required to substantiate reports of physical *inability* to perform in prospective assignment.
- Emotional maturity.

If you meet the qualifications and would like to train Navy recruits, submit your request for recruit company commander duty via your chain of command and on your Enlisted Duty Preference Sheet.

Leading the recruits isn't the only job CCs do. Seventy-five percent of the administrative and management jobs at RTC are filled by men and women designated as company commanders but not leading a unit. All of the jobs support RTC's primary function: training recruits.

Company commanders work on a rotating schedule. During a three-year tour, master chiefs lead one training unit; senior chiefs lead two; and chiefs and below lead as many as nine. In between units, they fill various "hold" jobs such as swim instructor, dental appointment coordinator, administrative support and division staff positions. These jobs require less hours daily than leading a unit and they more closely resemble traditional shore duty.

Most CCs, however, prefer being an active company commander to working in a hold job—they figure that's what they're there for. Of course, the days are notoriously long and the frustrations frequent, but, "It's the progress you see day to day that keeps you going," Senior Chief Hutton said. "You think about the way those recruits came in and you see the way they leave—there's a 100 percent difference."

The difference develops so slowly that recruits are barely aware of their metamorphosis. Day by day, with constant company commander supervision and encouragement, the unit slouch gets himself squared away and develops pride in his unit and his uniform.

Bolstered by her company commander's tales about the "Navy out there" an ambitious young woman dreams of becoming a petty officer. Everyone in every training unit begins to think of themselves as part of the team.

Graduation is the payoff—the culmination of eight weeks of hard training. When the recruits pass smartly in review, company commanders receive their reward for a job well done. The pride felt by each new sailor is reflected in each CC.

"At my first graduation," said one young CC, "I had to wear sunglasses so my recruits wouldn't see the tears in my eyes. I was damn proud." ⚓

Eighty-four recruits begin their first day of Navy training with an indoctrination from one of their company commanders.

Bearings

Top Saxophonist

"Practice a lot and practice correctly" is the advice Chief Musician Dale Underwood offers young musicians seeking to improve their technique. MUC Underwood, featured saxophone soloist of the U.S. Navy Band's Concert Band—the largest of the Navy's performing units—has been practicing what he preaches since he began his musical career at age 9.

"Of course, at that time," he said, "I never had any idea I would one day play with the Navy Band. My only goal was to be successful."

An 11-year veteran of Navy music and a featured soloist during the Navy Band's national tours, MUC Underwood has reached his goal. In July 1976, he performed as guest soloist during the 5th World Saxophone Congress held at the Royal College of Music in London. In 1977, he was guest soloist at the World Saxophone Symposium in Brussels, Belgium, where he played a composition written especially for him by Clare Grundman.

Additionally, the saxophonist has been a guest soloist with Arthur Fiedler's Boston Pops Orchestra.

Professional and military concerts keep MUC Underwood busy, but still he finds time to teach and perform with high school and college musical groups around the country.

"I have presented master classes and clinics at most of the schools where I played," he said. "I advise every prospective saxophonist not only to practice correctly and diligently, but also to listen to a lot of saxophonists either on recordings or live to learn what they sound like. Then I tell them to listen to any soloist on any instrument for phrasing and musical interpretation."

As a member of the Navy Band, Chief Underwood has reached the top of the military music world and he intends to stay there until he retires from the Navy. "Then I would like to do clinic tours around the country," he said, "and do recitals and solos with high schools, colleges, universities and orchestras. Other than that, I want to keep on improving as a saxophonist and musician." *—By JO1 Jun Calaunan.*

Planning Ahead

Almost $1.3 million in fuel and maintenance costs may be saved annually at NAS, Patuxent River, Md., after modernization of a high-temperature hot water distribution system is completed at the station. Complete replacement of the seven-and-a-half miles of high-pressure pipelines is expected to take five years. The system serves 700 buildings.

"When the project is finished, we expect to realize as much savings each year as we currently spend on heating fuel," said Captain George Lake, the station's public works officer. "The projected savings reflect not only the cost of fuel five years from now, but the additional savings derived from a requirement for less maintenance."

NAS Patuxent's buildings are heated by hot water which constantly moves from the plant at 400 degrees F. and returns in a parallel line at a cooler temperature, ready for reheating.

Pipes being replaced have been in use since 1961; almost all are underground and corrosion has taken its toll. A main problem with the existing system is that it is difficult to service.

The new system will be 50 percent above ground. Portions below ground will use high-pressure pipes insulated separately, then suspended together inside a larger pipe which will also be insulated.

Heaviest Single Lift

What is the best way to get a 63-ton piece of machinery from California to Maine in one piece? Fly it!

With the guided missile frigate *Francis X. McInerny* (FFG 8) under construction at Bath Iron Works, the Navy was facing the problem of getting the main propulsion reduction gear from its assembly point in California to the shipyard in one piece. They called on the Military Airlift Command to transport the $1.3 million gear on a C-5A *Galaxy*, the largest operational aircraft in the world. At 63 tons, the fully assembled reduction gear and its lifting cradle were reportedly the heaviest single unit lift ever made by the giant Air Force cargo plane.

The operation was undertaken when it was found that shipping the gear in sections by surface transportation cost more since the gear would have to be retested after reassembly. By shipping the unit intact, it could be assembled and tested at the manufacturer's facility. This more than offset the additional cost of air transportation. In fact, the Navy expects to realize significant savings by using this air transport alternative for heavy equipment.

McInerny is the first of 11 "follow ships" in the FFG-7 program, the prototype being *Oliver Hazard Perry*. Present plans call for the Air Force to deliver reduction gears for these follow ships at a rate of one every three months starting in May.

Fleeting Creations

Any ship's cook can tell you that the galley isn't the coolest place to work. But Senior Chief Mess Management Specialist Bruce Doyle has found a way to beat the heat—he works with ice. To be precise, the chief specializes in ice sculpture.

Chief Doyle's ice creations, used to enhance the meals aboard the fast frigate USS *Rathburne* (FF 1057), homeported at Pearl Harbor, are so well known that he's in constant demand for such occasions as ship receptions and changes of command. For these special events, Doyle strives to carve figures which characterize the theme of the occasion. One recent event was in honor of the surface warfare community for which Doyle carved the surface warfare officer insignia.

"I'd have to say it was one of the most difficult to execute," said Doyle. "What made it so tough were the many angles and intricate lines."

According to Doyle, special equipment isn't required. He uses a five-pronged ice knife, an aluminum-bladed hand saw, and imagination. Although simple tools can be used, he points out that handling large pieces of ice can be tricky. Care must be taken from the time the ice is acquired until the finished product is on display.

"Just one slip-up and it's all over," Doyle cautioned. "In addition to possibly cracking the block or destroying the carving, a person could be injured." Doyle once had two 300-pound blocks smash through the tailgate of his pickup truck—fortunately, no one was injured.

Although the chief spends most of

his time supervising the *Rathburne's* food services division, he's found time to teach some of the junior men the art of ice carving. "Like me," he predicts, "these men will soon realize how much class the carvings add to an event. They're learning fast and the figures they've created have added a special touch to the meals."

School Honors Two

Two holders of the Medal of Honor, both natives of Abingdon, Ill., were honored when their home town dedicated a new high school auditorium and gymnasium in their names.

The auditorium was named after Vice Admiral James B. Stockdale and the gymnasium was named after his cousin, retired Marine Major Robert Dunlap. Both are graduates of Abingdon High School.

VADM Stockdale, President of the Naval War College at Newport, R.I., was presented the Medal of Honor in 1976 by President Gerald Ford for heroism while senior naval officer in the prisoner of war camps of North Vietnam. Major Dunlap was awarded the Medal of Honor in 1945 by President Harry S Truman for heroism on Iwo Jima. He was wounded in action while commanding Company C, First Battalion, Twenty-Sixth Marines, Fifth Marine Division.

The retired major is now a high school mathematics teacher and basketball coach in Monmouth, Ill.

Admiral Stockdale presented a small, clay replica of the flag-raising on Iwo Jima to the high school. It had been used by the sculptor as a working model for the Marine Corps War Memorial at Arlington.

He also presented a copy of the original painting of the Revolutionary War battle of Yorktown. Captain David Beard, Stockdale and Dunlap's ancestor, participated in that battle.

Weather Permitting

Perseverance is a discipline taught in the martial arts. Senior Chief Electronics Technician Don Richardson and his eight-man martial arts team aboard USS *Leahy* (CG 16) have learned this discipline well.

Richardson, a black-belt holder in the Korean martial art of *Tae Kwon-do,* has been practicing this form of self defense for five years. He formed and began coaching the *Leahy* team two years ago, but has not been able to enter his team in many tournaments.

"Our at-sea schedule on *Leahy* precludes participation in many of the tournaments," Richardson said, "We keep practicing and hoping to be in

Above: Four of the members of the Leahy *Tae Kwon-do team (left to right) are Senior Chief Electronics Technician Don Richardson, Electronics Technician Seaman Mike Mount, Machinist's Mate Fireman Eric Werner and Personnelman 3rd Class Charlie Barron. Werner, stationed aboard USS* Henderson *(DD 785), joined Richardson's team for the 14th International Karate Championships at Long Beach, Calif., by invitation.*

port during a tournament, but it doesn't work out that way most of the time. For example, we recently pulled into San Francisco only to find that a tournament had ended the day before.

"We don't give up. We keep practicing in port and at sea—every day at sea when the weather permits."

One of the difficulties encountered by a sea-going martial arts team is that when they do compete they do so against teams that practice in ideal surroundings ashore.

"We just can't practice in rough weather at sea," says Richardson. "Balance is very important. So we exercise. But if you're not in shape for a tournament, you can get your tail whipped pretty good."

Perseverence paid off for the *Leahy* team, however, during the recent Western Regional World *Tae Kwon-do* Championships in Corvallis, Ore. The team walked away with three second-place wins.

What is in the future for Richardson's sea-going martial artists?

"We have a tournament coming up soon in San Diego which I'm sure we'll be able to attend," Richardson said, "and the ship will be in Hawaii in the near future where we hope to find something going on. In any case, we will keep practicing and entering tournaments wherever we can find them."

They Keep Giving

Most Americans take education for granted. That's why the crew of the USS *Barbel* (SS 580) were surprised to learn from their Filipino shipmates that students in the Philippines pay for their high school education.

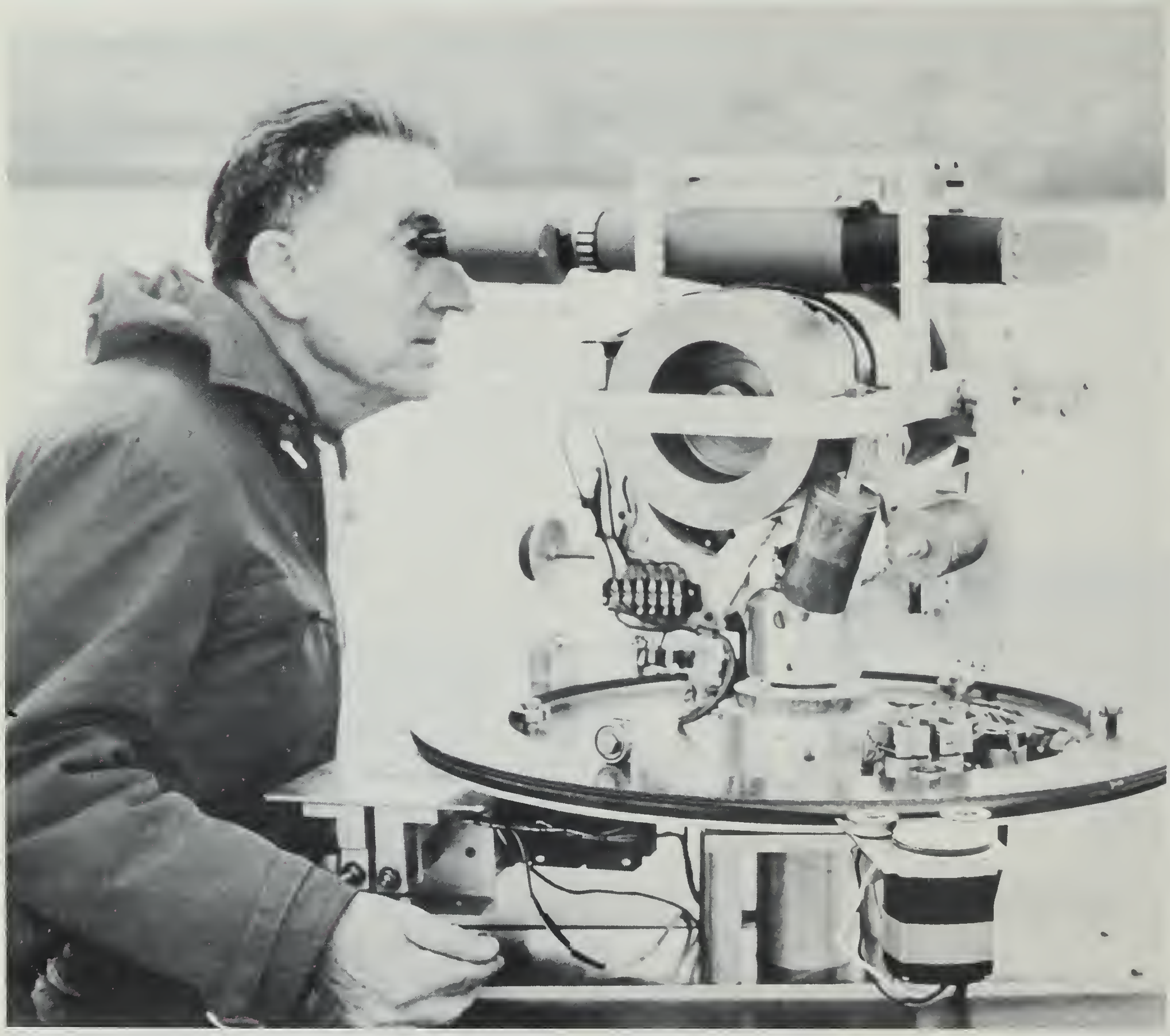
This prompted the 87-man crew to donate $680 to establish four scholarships for public school students of Olongapo, the city adjacent to Subic Bay Naval Base.

"Originally we were going to raise funds for just one scholarship," said Ensign Douglas Schaefer, *Barbel's* public affairs officer, "but after the first collection, we had over $600. The men dug deeper into their pockets and came up with enough for four scholarships."

The scholarships will provide for the students' books, tuition and other expenses in high school for four years.

Generosity is not uncommon to the *Barbel* crew. During the last Combined Federal Campaign, they raised $2,300. The men also donated blood at various liberty ports and purchased toys for an orphanage in Taiwan. ⚓

Laser research



Prof. Gene Crittenden (above) checks the alignment of the laser on board Acania.

lights the way

BY THOMAS A. HOULIHAN

"Red sky at night, sailor's delight; red sky in the morning, sailor take warning!"

This old saying has taken on a new meaning at the Naval Postgraduate School (NPS), Monterey, Calif., where members of a special research group regularly shine a red laser light across the bay throughout the night and into the morning.

The Electro-Optics/Laser Technology (EO/LT) research group, composed of faculty and officer-students from the NPS departments of meteorology, oceanography, physics and mechanical engineering, are trying to determine how effective laser communications across the seas can be. Specifically, their nocturnal efforts are directed at finding out how laser transmissions are affected by the marine environment.

Three primary effects have been identified:

The turbulence created by the temperature difference between air and sea causes the laser light to scintillate.

Salt spray in the air causes the light to diffuse or spread and become less coherent.

Waves on the sea's surface cause the laser light to dance and wander around on a receiving target.

These effects are a hindrance to the transmission of information on the laser beam. In fact, under some conditions, laser communications may become incomplete or impossible.

People from the Physics Department send and receive the laser transmissions. They transmit either ship-to-shore or shore-to-shore. Then, meteorology and mechanical engineering department members determine the characteristics of the marine environment through which the laser beam is transmitted. They are supported by the crew of the research vessel *Acania,* operated by the NPS Department of Oceanography. In all, about 25 people—students, faculty, technicians and crew—participate in an experiment that can last from three to 14 days and involve operations anywhere in the Pacific.

The familiar red (helium-neon) laser light is only one of three beams that are transmitted during the NPS experiments. The other two beams transmitted are in the infrared (IR) range and are invisible to the eye. However, proper detectors at the receiving stations not only *see* these IR beams but also measure the twinkling, diffusion and wandering experienced by the beams.

When the transmissions are made from ship-to-shore, a special, stabilized platform developed by NPS personnel is used to keep the laser light on target even while *Acania* is pitching and rolling at her anchorage. In addition to this laser gear aboard *Acania,* a complete set of meteorological gear is measuring wind velocity, temperature and relative humidity. Also, special gear for measuring turbulence and aerosol (salt) particle distribution is mounted on the forward mast of *Acania* at several levels.

The recording and processing of this immense amount of data are done by instruments that fill the aft sections of the vessel. At the shore receiving station, a converted bus houses the necessary processing instruments. Additional meteorological gear accompanies this laser instrumentation so that environmental data can be gathered both aboard ship and ashore.

Two types of experiments are performed by the EO/LT research group. For the first testing, a laser beam is transmitted 10 to 15 kilometers across Monterey Bay, and *Acania* either sails along the path or anchors at specific stations to record the appropriate meteorological data. In the second experiment, a laser beam is transmitted ship-to-shore and *Acania* sails away from the receiving station until the received light is so faint as to be masked by background noise.

These "extinction" measurements are sometimes performed during fog occurrences so that the effect of this weather type can be recorded in addition to all other variables.

So far, all experiments have included these surface measurements. Future plans include measurements to platforms mounted on kites tethered to *Acania.* A pilot experiment involved airborne laser laboratories aboard two KC–135s with *Acania* on station in the Pacific.

Future cooperative efforts involving calibration and data exchange experiments between a fixed tower at the San Nicolas Island station of the Pacific Missile Test Center and *Acania* are being scheduled. ⚓

ARMED FORCES
POLICE
4

Accepted by military, community, and police alike

STORY AND PHOTOS BY
JO1(SS) PETE SUNDBERG

The young sailor sits in a Washington, D.C., bus terminal and stares at the clock overhead. It's 2 a.m.—he's due at his new command in Norfolk in six hours, but he's lost his wallet. Now, out of cash and not knowing where to turn, he thinks his case is hopeless.

Boiler Technician 1st Class Eric Bush pulls his patrol car in front of the bus station, gets out and enters the building. He scans the waiting room and sees the seaman sitting on a corner bench nervously toying with his seabag. Bush approaches.

Left: UT3 Thomas Nichols. Above: Army SFC Roger Alsont, patrol chief, briefs the patrol section.

The sailor looks up and sees the badge and gun. He then notices Bush's crow. His face shows relief. Blurting out his tale, he's found someone who can help. The young sailor just met an Armed Forces Police officer.

Bush transports the young seaman to the Armed Forces Police Detachment (AFPD) headquarters at the Washington Navy Yard, arranges a place for him to spend the night and calls the sailor's command. By the next day, the young sailor will be safely on his way to Norfolk. For the Armed Forces Police, helping a service member is part of the day's work.

Armed Forces Police detachments are not new. The Hawaiian Armed Services Police (HASP), for example, was established in 1948. A year later the Military District Washington AFPD was initiated. Over the years, other detachments were organized in Seattle, San Francisco, New Orleans and New York.

The 83-member Washington detachment—17 are Navy men—has jurisdiction over more than 100,000 military people in the District of Columbia and surrounding area. The detachment, commanded by Army Lieutenant Colonel L. C. Hardmon, assists local police with matters involving military personnel in incidents away from military installations. It acts as a single point of contact between the military community and civil authorities.

Three shifts per day provide 'round-the-clock service to the area. Thus, when a military person is apprehended by the civil police, the AFPD is immediately informed. In most cases, if it's a misdemeanor, the offender will be released to an AFPD patrolman. In turn, the offender's unit commander will be informed of the incident.

Not only does this keep military people out of jail and with their records clean, but it also provides the civil authorities with an alternate to the lengthy arrest-detention-court-jail method of disposing of offenders.

Although Armed Forces Police officers do not attend a formal police academy, they undergo a continuous training program which includes use of weapons, physical conditioning, court procedures and familiarization with local laws.

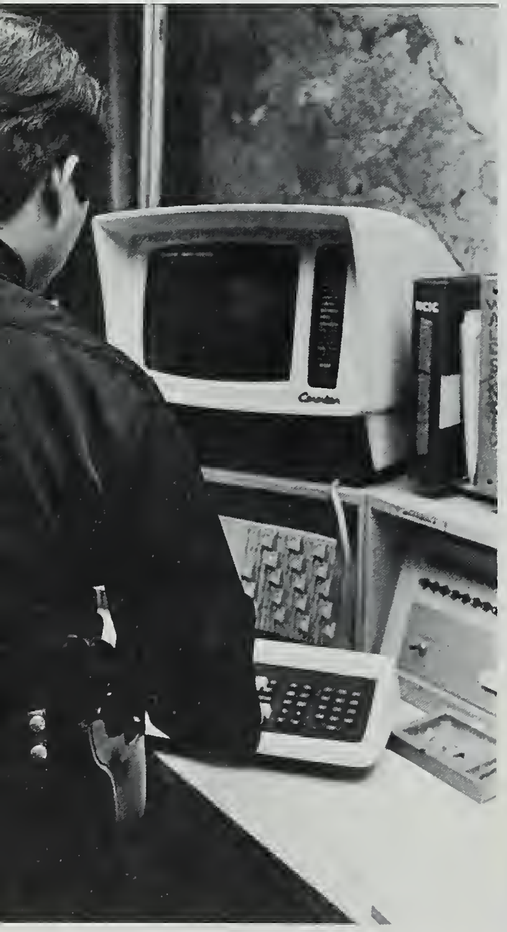
"The detachment is shore duty for the Navy people," said Senior Chief Construction Electrician Bob Garland, non-commissioned officer in charge of court liaison, "so we have no law enforcement training behind us as do the other service members of the Armed Forces Police."

An average of four hours a week is spent in the classroom by all AFPD members and it doesn't take the sailors long to catch up.

"We don't just give a man a badge and gun and assign him to a patrol," says LTC Hardmon. "He has to qualify with the weapon, be indoctrinated to our way of doing things and prove himself capable of handling the situation.

"Despite the lack of prior law enforcement training," adds Hardmon, "the Navy personnel learn exceptionally fast and we're able to put them on patrol shortly after they report to us."

AFPD members look and act like police officers and, as such, are accepted in the community, by civilians and police alike, as law enforcement officers. However, they are in a position unique to their job as police officers because their authority is limited by the federal Posse Comitatus Act which states that an AFPD officer will



Counterclockwise from top: MA1 B. J. Coltrain confers with Judge Thomas Monroe. Information can be obtained through a computer linked directly to the F.B.I.'s National Crime Information Center. A patrolman's life may depend upon his ability with a weapon. FTGC(SS) Jim Reynolds is responsible for his section's physical training.

not, in an official capacity, be used to enforce civil law except under Presidential proclamation. AFPD's only jurisdiction is over military personnel as defined by the Uniform Code of Military Justice.

No law, however, prevents them from taking action to save a life, reporting and maintaining observation of felonies in the making, and backing up a civilian police officer in time of need. They also assist local authorities through the use of the National Crime Investigation Center computer which is linked directly to a terminal at the Federal Bureau of Investigation headquarters in Washington.

In addition to maintaining military law and order, the AFPD is often called upon to escort VIPs, assist at military functions and carry out missions of mercy such as transporting blood from one hospital to another.

However, the work of the Armed Forces Police doesn't end on the streets.

"Last year an average of 170 military people a month had their day in court," says Garland, "and whenever a person appeared we had a court liaison representative there to help."

The representatives cannot give legal advice, but they can aid offenders by making them aware of possible sentences or fines the court is authorized to impose. It's up to the defendant to decide whether it's in his best interest to obtain legal representation. In addition to visiting incarcerated military personnel, an AFPD representative will also accompany him to court and advise him of the procedures applicable to that particular court.

"Most of the military people I've met in court have no idea at all about how to conduct themselves, or, for that matter, what they can expect from the bench," says Master-at-Arms 1st Class B. J. Coltrain, Arlington District Court representative.

"I'm also there to reassure them that their commands will not discipline them," continues Coltrain. "You'd be surprised at the number of people who assume that because they commit a civil offense, the military will also punish them for it."

If the offender has a clean record with the military and civil authorities, the representative will vouch for the person in court. In most instances, the judge takes such information into consideration when he rules on the case. After the case is disposed of, the representative informs the offender's unit commander of the results of the court action.

"We let the commanding officers know the outcome of the court action in case the person is jailed or has trouble paying a fine," says Coltrain. "The command can often help the man financially and, of course, they have to be aware of whether or not the person will be returning to the command."

The Armed Forces Police exists to help service members, whether it be a military family passing through the area, a soldier or sailor in need of help, or a military person involved in a civil problem.

Armed Forces Police are available 24 hours a day—and they are there to help you. ⚓

ARMED FORCES POLICE DETACHMENTS

If you are in one of the following five metropolitan areas and need help, call the Armed Forces Police.

Washington, D.C.	202-433-3277
Hawaii	808-543-2641
New York, N.Y.	212-858-1133
New Orleans	504-363-1415
Seattle	206-941-3330

Racking up the Sea Time

The world's first permanent multinational naval squadron to operate in peacetime, the Standing Naval Force, Atlantic (STANAVFORLANT), celebrated its 10th year in March.

Under the operational command of Admiral Isaac C. Kidd Jr., USN, this permanent naval force is made up of ships from NATO Alliance countries. STANAVFORLANT, usually composed of between four and nine destroyer or frigate-type ships, serves as NATO's maritime spearhead in preserving free access in North Atlantic waters. Eight nations—the United States, Canada, the United Kingdom, Norway, Denmark, Germany, the Netherlands and Portugal—have participated in this force. During its 10 years of existence, some 45,000 officers and men have been trained in this unit.

Ships from different NATO nations normally remain with the squadron for up to six months. They are then relieved by other NATO naval members.

STANAVFORLANT was first activated Jan. 13, 1968, in Portsmouth, England, after having been approved at the 1967 NATO Ministerial Meeting in Brussels. The first squadron consisted of four ships: the Norwegian frigate HNOMS *Narvik,* the Netherlands destroyer, HNLMS *Holland,* the British flagship HMS *Brighton,* and the USS *Holder* (DD 819).

Historically, the concept that men of different nationalities can serve effectively together at sea is not new.

Throughout recorded military history, men of different nations have joined together to battle common enemies. From the Revolutionary War to recent times, warships of allied nations have sailed together.

Usually, STANAVFORLANT ships operate 70 percent of the time in the eastern Atlantic with the remaining time spent in the western Atlantic area which includes the U.S., Canada and the Caribbean. It's not uncommon for the force to travel 55-60,000 miles in a year's time and visit 30 ports in 10 different countries.

Capable of full deployment within eight hours, the force spends approximately 60 percent of its time at sea. During its deployment, continual training is conducted and many large and small-scale NATO exercises in the Atlantic operating area are supported by STANAVFORLANT.

Training is not just limited to new tactics developed by the NATO leadership; requirements from each national guide must be met. Therefore, during in-port visits, personnel often participate in firefighting, damage control and weapons training in various localities.

An active cross-training program is also used to further mutual understanding and to provide insight into how others accomplish their jobs. The cross-training deals with officers and men working with their counterparts aboard another ship in the force. The program not only bolsters professional understanding, but also provides a look into customs, food, living standards and gives an insight into the general atmosphere aboard an allied ship.

More than ships at sea, the Standing Naval Force, Atlantic, by its very presence, demonstrates to a potential adversary the solidarity and cohesiveness of the NATO Alliance. It sails with the common purpose of preserving free access to North Atlantic waters. ⚓

Rights & Benefits

CHAMPUS-Care of the Handicapped

Although travel opportunities inherent in the life of all Navy men and women are attractive to many Navy families, this same travel can create special problems when a member of the family is a handicapped child or spouse.

Before these family members can qualify for public programs that would supply needed specialized care and training, they must first meet residency requirements. Fulfilling those requirements can sometimes be difficult.

To ease the burden placed upon these active duty people, a program for the handicapped has been established under CHAMPUS. It is available only to the handicapped spouse or child of active duty members who cannot establish the residency requirements that would entitle them to care under public resources.

Since retirees, spouses and children of retirees and deceased active duty members can establish needed residency in a particular location, they are not eligible to participate in this program.

Basically, the criteria for entrance is that the handicap involved—physical or mental—must prevent the individual from engaging in the basic activities of daily living expected of unimpaired individuals in the same age group. Also, the condition or handicap must be expected to continue or already has continued a minimum of 12 months. A CHAMPUS official will make the final determination as to whether the condition is sufficiently handicapping to qualify the individual for benefits under the CHAMPUS program.

Except for initial diagnostic services, all benefits must be approved by CHAMPUS before they are received. This preauthorization requirement includes rehabilitation, training, special education, institutional care and certain transportation costs. Any claims submitted without preauthorization cannot be honored.

Under the program for the handicapped, the sponsor pays a portion of the costs each month in which the dependent receives benefits, according to a sliding scale based on pay grade:

E–1—E–5	$25	O–5	$65
E–6	$30	O–6	$75
E–7 & O–1	$35	O–7	$100
E–8 & O–2	$40	O–8	$150
E–9,W–1, W–2 & O–3	$45	O–9	$200
W–3, W–4 & O–4	$50	O–10	$250

CHAMPUS then pays up to $350 per month for authorized services; any additional amount is the sponsor's responsibility. If two handicapped family members are in the program, the sponsor pays the monthly share for only one. The $350 limit applies to only one dependent—or the one incurring the least expense any given month. CHAMPUS will pay the entire monthly cost for the second beneficiary except for any portion of the sponsor's monthly share left over in paying for the first dependent's charge.

CHAMPUS stresses that public resources must be used as much as possible. The only time CHAMPUS will share the cost of care from private facilities is when a cognizant public official (any state, county or municipal official whose position provides him with knowledge of facilities in the area) issues a written statement to the effect that no adequate public facilities or funds are available to aid the beneficiary. In addition, the private concern must be a nonprofit operation.

There are other considerations involved in the handicap program and you should contact one of the following for additional information:

- CHAMPUS advisor located at Uniformed Services medical facility.
- Any organization that processes CHAMPUS claims.
- OCHAMPUS, Denver, CO 80240.
- OCHAMPUSEUR, APO New York 09403, for countries in Africa, Middle East and U.S. European Command area (or OCHAMPUSEUR, 144 Karlsruherstrasse, 6900 Heidelberg, FRG, for those who cannot use the APO system).
- OCHAMPUSPAC, Hawaii Medical Service Association, 1504 Kapiolani Blvd., Honolulu, HI 98614 for individuals in the Pacific area.
- OCHAMPUSSO, Mutual of Omaha, 3301 Dodge St., Omaha, NE 68131, for individuals residing in Bermuda, the West Indies, Central America, Latin America and Mexico.
- The Surgeon General of the sponsor's military service.

A copy of the CHAMPUS regulation may be reviewed in the office of the nearest CHAMPUS advisor, or a copy may be purchased for a check or money order of $4.25 from—

Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402
(Stock No. 008 001 00102–9)

Hands that reach across the sea

BY JO2 DAN WHEELER

The pleasure a single schoolbook gives a needy child hungry for knowledge cannot be calculated from figures scrawled on a ship's manifest; nor can it be measured in dollars and cents.

"I give a million thanks because these books you gave us have added so much to my knowing about the world," said a seventh grader overseas after getting her first geography book from Project Handclasp. "I never knew the world was so big."

That's what this people-to-people program is all about: Navy people meeting, helping and talking to citizens of foreign lands, thereby scaling the world down to human size.

Project Handclasp relies on contributions from individuals, service and religious organizations, and industry to provide the materials necessary to carry out its mission overseas. Through the cooperation of many donors, Project Handclasp has been able to ship approximately 2,000,000 pounds of charitable material, valued conservatively at $3,000,000, throughout the western Pacific annually for the past several years. All of this material has been contributed by the American people.

This material has been transported by Navy opportune lifts to Taiwan, Korea, Hong Kong, Okinawa, Pakistan, the Philippines, the Marshall Islands, the Marianas, and, recently, to Mauritius and, for all practical purposes, to all ports throughout the world visited by U.S. Navy ships departing San Diego and other West Coast ports. Distribution of the material is carried out directly by U.S. service personnel stationed in overseas areas or embarked in fleet units which visit these areas. Since its inception in 1962, Handclasp has been so successful that it prompted the Office of the Chief of Naval Operations to call it "the highest impact, cost-effective, people-to-people program in the Navy."

Basically, Handclasp has a twofold mission.

- To ship materials to major overseas shore commands for distribution in the areas served by the command.
- To serve as the primary source of materials available to afloat commanding officers for ship-sponsored, people-to-people programs at localities visited by Navy ships.

While Project Handclasp may not seem to be tremendously important to U.S. national defense, Handclasp has played a vital role in enhancing the Navy's image abroad. Such involvement is an important part of the Navy's contribution to national defense. It promotes personal diplomacy by eliminating the middleman; American service people do the actual distributing.

"In this way," said Commander Marchel C. Tevelson, Director of Project Handclasp, "not only are the people most in need assured of receiving the material, but the service personnel involved in the distribution gain a keen insight into and have a greater appreciation for the problems and lives of these people. The service people involved in the distribution of Handclasp materials are ambassadors of good will . . . representing all the people of the United States."

That direct contact with recipients is probably the most satisfying aspect of the program. "This program," wrote another commander after his men distributed materials on Okinawa, "has provided command sailors with a chance to see life as it is lived in Okinawa's communities they would otnerwise seldom see. It has given the Okinawan people an opportunity to meet and converse with the sailors and compare preconceived images with firsthand experience."

Donations arrive almost daily from across the U.S. For example, in December 1977, a New Jersey manufacturer donated 17,000 gallons of paint which subsequently were delivered to the Philippines. There, through a civic action project which combined efforts of Navy people and local residents, school buildings and orphanages took on a new and cheerful look. Project Handclasp was even in evidence following a recent amphibious exercise—Fortress Lightning—in the western Pacific when food and medical supplies were distributed to the inhabitants of Mindoro in the Philippines.

The city of Pasadena, Calif., donated a fire engine, eventually given to the

Volunteer Fireman Corps of Solala in Guatemala where it was direly needed. The Children's Hospital in Washington, D.C., donated hospital equipment and material to outfit a 40-bed hospital in Mauritius.

The California Catholic Daughters of America presented Handclasp with a check for $6,000 in 1977 (one of their many donations) which was used to purchase treadle sewing machines and other sewing supplies. With each treadle sewing machine there were 50 yards of cloth, needles, thread, cotton, scissors, buttons, patterns, and sewing notions—all referred to as a sewing machine workshop. Project Handclasp's treadle sewing machine workshops not only make lasting gifts from the American people but also afford people an opportunity to learn a trade and become self-sustaining to some extent.

Two 40-foot truckloads of hospital equipment, including two iron lungs, were donated by a Nevada hospital. The list of donations goes on.

Material donations provide the vast inventory needed to operate Handclasp, but actual distribution overseas is the heart of the program. It's through person-to-person involvement at the scene that good will is promoted and the American image bolstered.

"I had a very warm reception wherever I went," said Chief Storekeeper J. D. Shannon of Headquarters Sup-

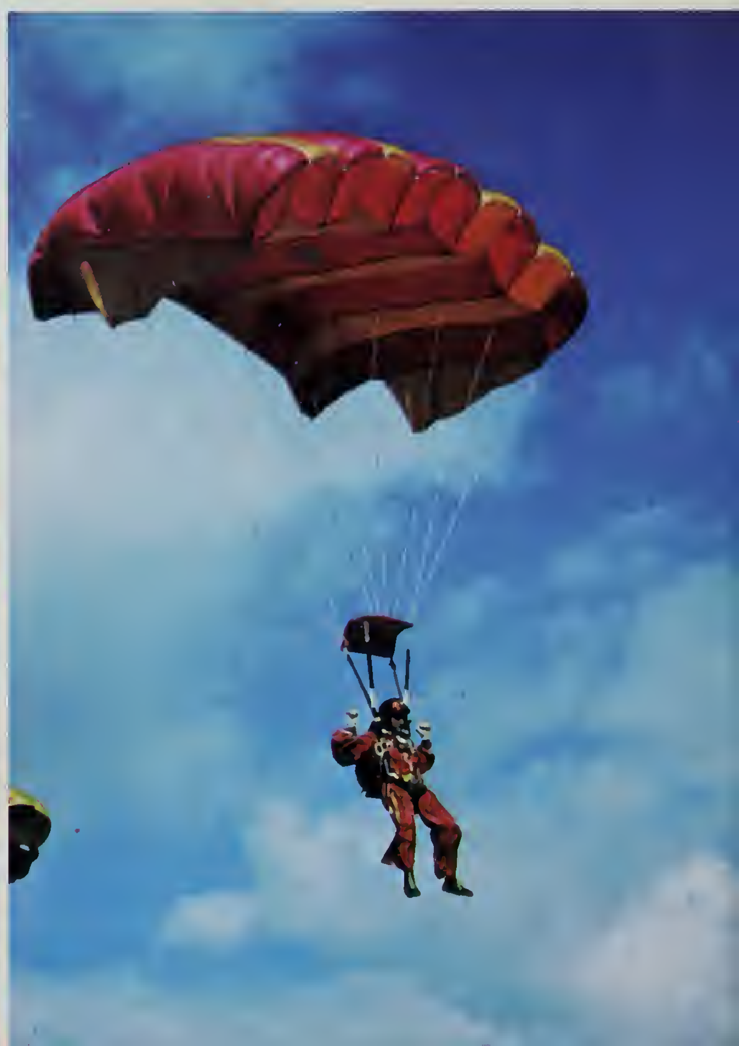
port Activity, Kaohsiung, Taiwan.

In May 1977, USS *St. Louis* (LKA 116) delivered 250 pallets of medical supplies, disposable diapers, baby care items, food, clothing and books to Taiwan for distribution. Disposable diapers delivered overseas are normally distributed to clinics, hospitals and other needy institutions. Large quantities of diapers have been sent to leprosaria and are used as bandages for the care of those in the advanced stages of leprosy.

"On behalf of the people and the government of Guatemala, I extend to you and your Project Handclasp the most heartfelt thanks for all of the aid and assistance that you provided us in our time of need," wrote Dario Soto Montenegro, Consul General of Guatemala. "It is because of people like you that no problem is too big to handle, that no disaster is too grave to overcome and no barrier too insurmountable."

Such high praise for Handclasp's efforts is typical of the feedback CDR Tevelson receives from military leaders, dignitaries and actual recipients after an operation is completed. Referring to the number and extent of Handclasp projects, CDR Tevelson said, "I'm proud we're able to do what we do. The tremendous response helps make it all worthwhile." ⚓

Captain Cook



Rediscovers Hawaii

Not since a Hollywood movie company filmed "South Pacific" 20 years ago in romantic Hanalei had so much excitement come to the Hawaiian Island of Kauai.

The tiny town of Waimea, on Kauai, decided recently to hold a three-day celebration honoring the 200th anniversary of British explorer Captain James Cook's discovery of the Hawaiian Islands. To the surprise of many of the villagers, thousands of people showed up.

Every hotel room on the island was booked. Over 10,000 tourists came to celebrate Captain Cook's 1778 landing at Waimea.

At the request of Kauai officials, the U.S. Navy helped reenact Cook's landing scene. From the Navy's nearby Pacific Missile Range Facility (PMRF), Navy men dressed as British sailors of the late 1700s walked ashore at the mouth of the Waimea River. No one seemed to mind that the U.S. Navy hadn't actually been at Captain Cook's first landing.

Chief Petty Officer Harry J. Matthews and Petty Officer 1st Class William R. Hill, both from PMRF, Barking Sands, worked long hours with Waimea officials coordinating the joint military-civilian celebration. Transportation had to be arranged, the order of parade floats had to be selected, backdrops, props and stage lighting had to be coordinated for a children's group dance and there were hundreds of phone calls to answer.

And then all was ready!

The Navy's Pacific Fleet Band from Pearl Harbor kicked off the first day's celebration with a heavy rock and "down home" beat. "Tsunami," the band's rock ensemble, and "Pac-Country," its banjo-strumming, fiddle-playing, blue-grass group, performed simultaneously at Waimea's high and junior high schools.

Later, under the direction of Chief Musician Mike Holden, the 15-member Pacific Fleet Band joined graceful hula dancers and local Hawaiian performers in a parade down Waimea's main street.

People spent the next day visiting newly reconstructed ethnic cultural villages scattered throughout the town. The day's biggest moment was the reenactment of Captain Cook's historic landing, shortly before sunset that evening.

In torch-lit procession, the "Cook Landing Party" followed "Hawaiian Royalty" to a festive dance pageant set up under a huge, circus-style tent. The royal party consisted of Navy civilian workers and local villagers in ancient Hawaiian garb.

That evening, the "Tsunami" band gave "Captain Cook" a thoroughly modern reception—complete with electric bass. The rock show shared top billing with the latest in American pop culture—disco music.

Twice a day the salvage ship USS *Conserver* (ARS 39) gave diving demonstrations. The ship, moored at nearby Port Allen, brought along its own red, white and star-spangled 500-gallon tank with large plexiglass window. The 10-foot high tank was set up on the pier where *Conserver* divers performed in various styles of diving dress, including the 200-pound Mark 5 deep-sea diving suit.

The Navy divers were a special hit with the hold-on-to-the-side-of-the-pool age youngsters, whose eyes widened at the sight of one diver drinking a Coke underwater.

Early in the day, Marine sky divers from Kaneohe fell out of the sky to ohs and ahs from spectators below—especially when the sky diving team free-fell into a star formation before parachuting to the ground.

Three conch shell blowers signaled the beginning of the grand parade—the highlight, and end, of the three-day celebration. U.S. military color guards marched past grandstands and wall-to-wall crowds, while the Pacific Fleet Band played "Anchors Aweigh."

The Pacific Missile Range float, depicting sailors landing on Kauai, took second place in the non-commercial category. Atop a base of woven palm fronds, Hawaiian Royalty greeted the sailors as they "rowed" their boat over blue plastic waves.

A large rainbow, made of spray-painted table napkins, heralded the sailors' arrival to the "Rainbow State."

The float's theme, appropriately, was "Sailor's Paradise." The Captain Cook festival was just that.

—By JO2 Betty Pease; Photos by PH2 Patrick O'Connor and PH2 Larry Foster.

Service on a Silver Tray

BY LCDR K. M. PEASE, JR.
PHOTOS BY PH2 JOHN COLEMAN

Aviation's cardinal rule is that flying and drinking don't mix. Pilots of Marine Helicopter Squadron 264 found out, however, that flying CH-46 helos and drinking—expresso, that is—mixes quite well.

Some would say that it's all a pipe dream. It is.

It all started on April 17 when the people of the high-lying areas of Naples, Italy, turned on their taps and got nothing for their efforts. About 45 miles to the north of the city, near the mountain village of Altavilla Irpina, the earth had shifted and ruptured the pipe which feeds water under high pressure to Naples. Officials of the Italian Aqueduct Company—AMAN for short—had a serious problem on their hands.

The break in the system, which delivers 2.2 million liters of water per second to 40 percent of Naples, was in a remote area not serviced by roads and—to add more woe—a deep ravine lay between the nearest road and the break. Officials figured the only way to undertake repairs was by using helos but no Italian helo assets were available at the time.

Doctor Tito Biondo, the Prefect of Naples, requested help from Captain

Aqueduct workers ready a piece of pipe to be lifted by a CH-46 of Marine Helicopter Squadron 264.

Benjamin W. Cloud, commanding officer of the Naval Support Activity, Naples. He got it.

Two helicopters from HMM-264 aboard the Sixth Fleet amphibious assault ship USS *Guam* (LPH 9) were pressed into service. The helos, piloted by Majors Wesley Marks and Dave Pedersen, were units of *Guam's* Marine Amphibious Unit 32, skippered by Colonel Warren Cretney.

Marks' co-pilot was Captain Tom Moore; his crew chief was Corporal Mike Swensen. Pedersen's co-pilot was First Lieutenant Mike Windsor and his crew chief was Corporal James Smith.

Two days after the huge break, 16 of 80 sections of pipe had been moved into a nearby staging area. The remaining 64 sections were positioned at the break. But that's only skimming the problem.

The sections of pipe were cumbersome. Each weighed more than two tons, beyond the lifting capacity of the CH-46s. The AMAN people brought the pipes to the site by flatbed truck and then cut them in half to a workable weight of 2,000 pounds. Each section was about 10 feet in length and three feet in diameter.

Left: Maintaining ground communications with a helo. Below: Looking over the situation with engineers at the site are (left) LTC John Solan, COL Warren Cretney, and (second from right and far right) CDR Tom Thomas and LT Ronald Holst.

Marks and Pedersen ferried the sawed-in-two sections by day and the water company workers cut the longer pipes during the night. Lending a hand in the operation were Naval Support Activity's public works officer, Commander Tom Thomas, and his assistant, Lieutenant Ronald Holst. Radio control between the helos and the ground personnel was run by Marine Captain Tom Rollins and Corporal Richard Gelotti.

When it came time for a coffee break, the Italians did it in style. A

Right: Local citizens visiting the construction site. Below: Marine CAPT Tom Rollins and CPL Richard Gelotti maintain communications with the two helos.

strange but welcome sight was the appearance on the job of a man carrying a silver tray holding cups of expresso.

The Americans weren't on the scene long when things took on a festival air. The choppers aroused the interest of the local people and soon the road next to the site was crowded with autos and children escorted by adults. The children were eager to meet the "Americani" and even more eager to try out their English.

Lunch was the highlight of each day—people looked out windows and peered from balconies as the Marines and Navy men entered Altavilla Irpina for their midday break. AMAN's chief engineer, Francesco Liberi, saw to it that the Americans had memorable lunches of pasta, meat, cheese, sausage and mineral water. All efforts by the Americans to pay their own way went unheeded.

AMAN officials praised the Americans and stated that without their help it would have been months before full water service was restored to all of Naples. The Italian press also was quick to praise the humanitarian aid rendered by the Marines, the Naval Support Activity and the Sixth Fleet.

The Americans have returned to Naples and USS *Guam*. The water system is back in business. All in all, it was a rather normal operation. Still, it should provide those involved with memories for years to come—especially the memory of the man with the silver tray bearing steaming cups of refreshing expresso.

Now, that's class. ⚓

Top: The noon meals were feasts. From Left: MAJ Wesley Marks, CAPT Tom Rollins, 1LT Mike Wendsor and LT Ron Holst. Left: Another vital link arrives at site of the break.

Bells of Abucay

BY JO1 LARRY AUSTIN
PHOTOS BY FERDIE R. MENDOZA

Through almost a century of war and peace, the bells of Abucay rang out over the Philippine province of Bataan. Then, cracked and broken, ravaged by time, they fell silent. Now, thanks to the Navy men and women of Ship Repair Facility (SRF), Subic Bay,

Right: Almost one ton of newly cast and highlypolished bronze bell is readied for its return to Abucay.

Below: A welder fits a newly cast clapper into one of the smaller bells of Abucay. Great care was taken to match the clapper's metal with that of the old bell.

the five Spanish bells, newly bronzed and burnished, are once again the pride of the province.

When the bells were brought to Subic Bay for restoration, great care had to be taken to match the old metal with the new metal prescribed by SRF metallurgy shop. The oldest of the five bells had been cast in 1859; the newest, in 1892.

The four smaller bells were repaired with a foundry welding technique in which they were heated "white-hot" before molten metal was cast into cracked and missing areas. Each bell required about three days to complete the welding process which included casting new clappers. After filling had been completed, the bells were sent to Shop 31 for machining and polishing on shipyard lathes, and, finally, to Shop 26 for installation of clappers.

The largest bell which stands about three feet high and has a diameter of 43 inches—about twice the size of the smaller ones—created the most problems for SRF. Welding techniques wouldn't work because the aged metal continued to crack even after repairs. SRF was forced to recast the 1,700-pound bell.

Again metal was tested for composition matching and a wooden pattern was constructed for casting. During casting preparations, four molds were made before workers were satisfied the form was correct. Under supervision of Nestor Del Rosario, a native of San Antonio, Zambales, R.P., 25 miles north of the base, the ancient bell was broken up for recasting.

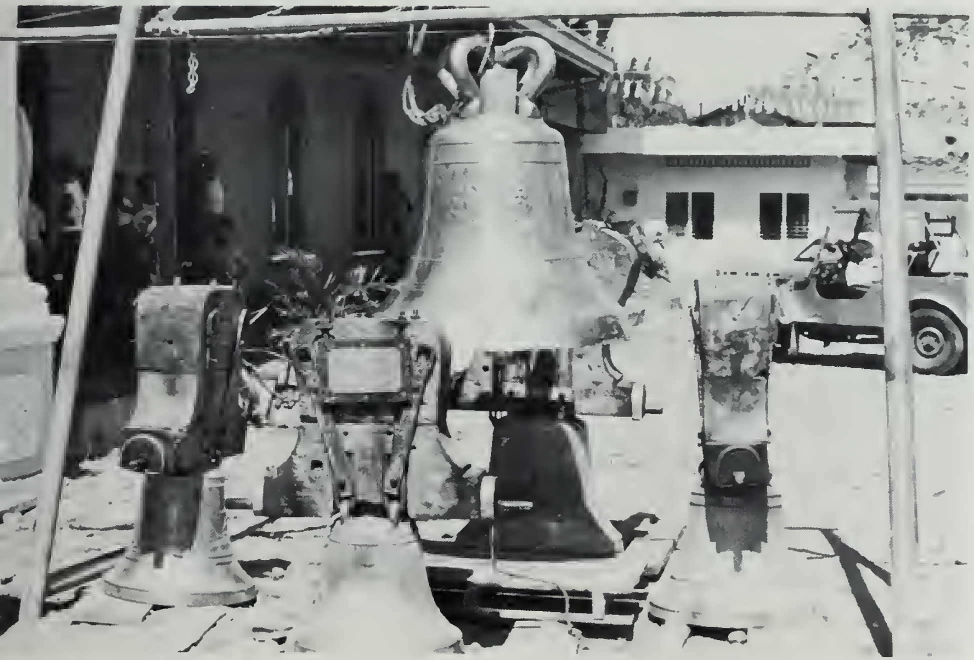
It took a day to pour the ancient metal to which new bronze had been added. The new bell, heavier than before, had lost some of its inscriptions but workers were able to duplicate two religious crosses cast on the original.

All five bells were restored, but the job was not done until after the testing.

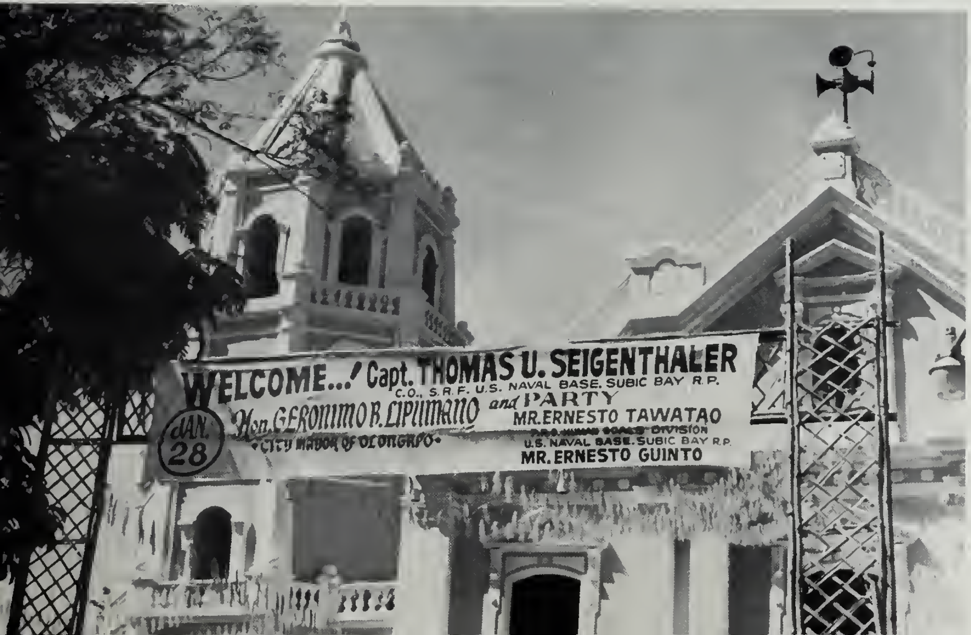
Early one morning, SRF workers, accustomed to the sound of shipyard machinery, were startled to hear church bells as the restoration team tried deliberately to break the bells. Pure, clear tones rang through the shipyard, proof of the repair team's careful attention to detail and individual commitment.

To celebrate the return of the bells, Abucay townspeople feted SRF workers with a ceremony of appreciation. A large friendship plaque was placed inside the church entrance.

After 10 years of silence, the bells of Abucay once more will echo across the land. ⚓



Above Left: Polished, repaired and ready to toll, the five bells of Abucay have returned for duty after 10 years' silence.


WELCOME...! Capt. THOMAS U. SEIGENTHALER
C.O., S.R.F. U.S. NAVAL BASE, SUBIC BAY R.P.
Hon. GERONIMO B. LIPUMANO and PARTY
CITY MAYOR OF OLONGAPO
MR. ERNESTO TAWATAO
DIVISION
U.S. NAVAL BASE SUBIC BAY R.P.
MR. ERNESTO GUINTO
JAN. 28

Left: A welcoming banner for Captain Thomas U. Seigenthaler, Commanding Officer of the U.S. Navy Ship Repair Facility Subic Bay, stretches across the entrance of Abucay Church upon the return of the five bells.

SAFE ANCHORAGE

Life at Carl Vinson Hall - the Naval Home

BY CATHERINE FELLOWS

The Navy's tradition of caring about its people—even long into retirement—has tangible evidence in its two sea service affiliated residences: Carl Vinson Hall in McLean, Va., and the new U.S. Naval Home in Gulfport, Miss.

Both residences offer security and dignity to hundreds of sea service retirees—officer and enlisted—their widows and dependents.

Although each residence home has taken a different financial approach to demonstrate that the service cares for its own—Vinson Hall depends on private support, the Naval Home is government-operated—each approach has only one goal: care of the individual

and a collective commitment to the well-being of retired senior citizens within the Navy family.

The Naval Home

When the Naval Home moved to Gulfport from Philadelphia two years ago, it carried with it a history that had roots in the Revolutionary War. In 1796, contributions from Navy men were solicited to establish a retirement fund for "disabled naval officers, seamen, and marines . . . who had served with honor and distinction during the Revolution."

The first Naval Home for such seamen was a handsome country house built before the Revolutionary War and surrounded by 24 acres of Pennsylvania meadowland. Here "faithful tars" lived while a permanent home was under construction in Philadelphia.

In 1827, the cornerstone for the home was laid and one of the earliest naval heroes, Commodore William Bainbridge, gave the keynote address stating that the home was being established for the seaman "who has been either worn out or maimed in fighting the battles of his country . . . He will here cheerfully and proudly live with his own messmates, with the companions of his former sports, toils, and dangers, and where they will animate each other recounting the pleasures which they enjoyed, the perils which they escaped, and the battles which they fought. . . ."

From the beginning, the Philadelphia Naval Home was a comfortable harbor for elderly and disabled Navy and Marine Corps veterans.

Two historical sidenotes:

- It was an outstanding architectural edifice built in the Greek revival design. It was placed on the National List of Historic Places in 1971 and designated a National Historic Landmark in 1976.
- The home predated the Naval Academy—in 1839, 11 naval officers were ordered to report there for instruction in "navigation, mathematics, languages and kindred subjects." Thus, the Naval School was first established in Philadelphia and later moved to Annapolis, Md., to become the U.S. Naval Academy.

The "old salts" who live today at the Naval Home in Gulfport don't think of it in historic terms. To them it's the "Navy Hilton."

Located right on the Gulf of Mexico, the new home features a main building with two, connected, 11-story residential towers, along with single-story attached support facilities.

This new complex includes chapel, hobby shop, laundry, maintenance shop, greenhouse, swimming pool, summer pavilion and pedestrian overpass. The complex is laid out to take maximum advantage of the natural beauty of the area, even to the extent that residents' rooms and central recreational areas all provide a view of the Gulf and a nearby magnificent stand of live oaks.

All of the new Naval Home's 580 rooms are comfortably furnished, and include carpeting and air conditioning. Residents also have a theater, post office, recreational area—billiards and bowling are two favorites—Navy exchange cafeteria and retail store, plus a library and club.

The Home has a 60-bed extended care medical unit with full hospital facilities and a dental clinic—both a branch of the Naval Aerospace and Regional Medical Center, Pensacola. Facilities include an outpatient clinic, physical therapy, X-ray laboratory, pharmacy and treatment rooms.

Governor of the Naval Home, Rear Admiral James C. Donaldson Jr., helps to merge the Naval Home's rich history and present "Hilton-like" atmosphere into a warm blend. "There are so many things that each of us can do for others here at the Home who are less able to do for themselves," he states. "Let's all resolve to do what we can within our capabilities for our fellowman."

At the Naval Home this resolution—the needs and wants of sea service retirees—has been achieved.

Carl Vinson Hall

Carl Vinson Hall—honoring the former head of the House Armed Services Committee—residents will tell you

Left: Carl Vinson Hall in McLean, Va.

Right: U.S. Naval Home in Gulfport, Miss.

that they feel they are a part of a large and caring family.

Nestled in a 13-acre tract of countryside in McLean, Va., the Hall's brick and stucco building crests a sloping hill. Clusters of maple, walnut, birch and pines screen the residence from the outside world. But the residents are not isolated. Far from it.

Not only is there convenient public transportation, to the horse races at Bowie, the Kennedy Center, National Theater, Arena Stage, or Wolf Trap Farm Park, for example, but the Hall also provides free bus service to Bethesda Naval Hospital, and nearby commissary and exchange.

For those residents who remain home, there's bridge, bingo, poker and Friday night movies; a craft studio; monthly lectures; hobby shop; and a MARS radio shack, with a licensed call sign—NONVH.

As one resident put it, "Rest? Well, that's up to you!"

Although there is plenty to do at Vinson Hall, and no one is idle, people aren't "pressured" into activities. The residents enjoy their independence; they come and go as they please. This is reflected in their living quarters—self-contained apartments ranging from efficiencies to two bedrooms, which residents may sublet if they desire to take a long vacation.

Each apartment has wall-to-wall carpeting, and air conditioning and heat that the resident controls. Venetian blinds, a kitchen with a refrigerator-freezer and garbage disposal, and a bath with a ceiling-mounted heat lamp and tub guard rail as a safety device, are all furnished the occupants.

Safety was uppermost in mind when the hall was designed. There are rails at the steps and along corridors, large doors and elevators for wheelchairs and "panic buttons" in all the bedrooms and in strategic locations throughout the public areas. The signal devices are monitored at the main desk in the lobby, manned 24 hours a day.

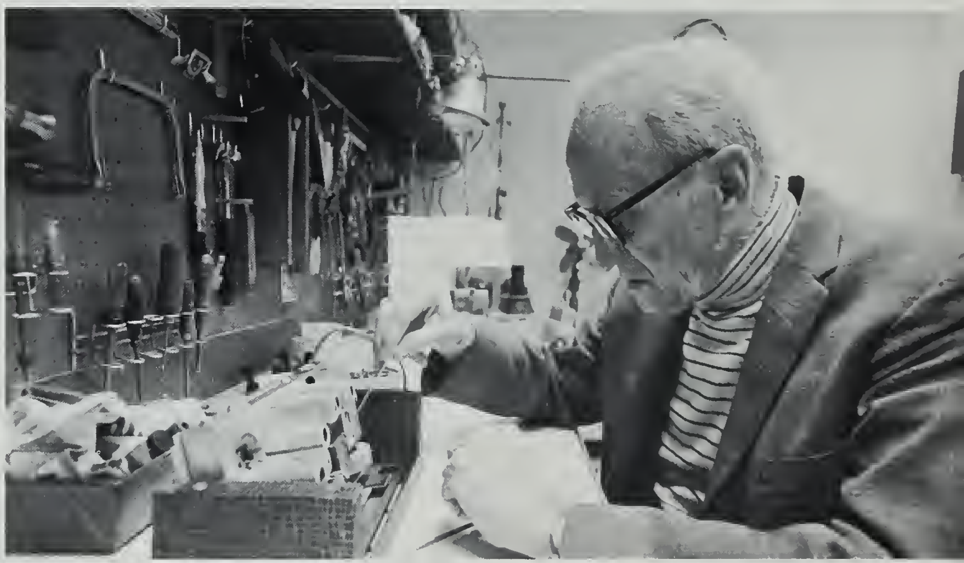
It took long workdays for the Navy Officers Wives' Club of Washington, D.C., to change Vinson Hall from a project into reality, back in 1969. Their hard work culminated in the formation of the Navy Marine Coast Guard Residence Foundation—the non-profit corporation that operates the Hall. Since then, Vinson Hall has been virtually full and almost always has a waiting list. Because the comfort, well-being and happiness of each resident are the Hall's main goals, it is important to the management that residents have just the apartment they want. In fact, persons considering applying for residency are encouraged to stay at the Hall for a week or so—in one of the five guest units—to "get a feel" for their new home before making up their minds.

Once they do, residents are assured of a warm welcome. The Hall's manager, retired CDR Charles R. Brown, feels that "Here at Vinson Hall we add not only years to people's life, but also life to people's years."

The Hall's sick bay is large and well-equipped; in addition to treatment, examination and physical therapy rooms, a nurse is on duty at all times. A salaried physician is on call and makes morning and sick calls each day. This medical care is backed up by the Bethesda Naval Hospital, to which residents have full access.

Dining facilities—lunch and dinner—are optional. Since residents have their own kitchens, many prefer to eat in their own apartments.

Additionally, there are the library, small chapel, beauty parlor, lounges, laundry rooms with automatic washers and dryers, space for private gardens,



Top: LCDR John Channell repairs a radio in the hobby shop at Carl Vinson Hall.

Bottom Left: Mrs. William H. Hamman (facing) chats with Mrs. Winfield A. Brooks in Vinson Hall's arts and crafts shop.

Bottom Right: CAPT Charles C. Bramble and LCDR John Channell examine their handiwork—a completed cabinet.

Far Right: CAPT John E. Fairbank is Vinson Hall's amateur radio operator.

and round-the-clock building security.

One contented resident summed up her Vinson Hall lifestyle, "We're all on a cruise here—either rest or recreation—and the sailing is fine!"

Naval Home Eligibility

Q: *Who is eligible for admission to the U.S. Naval Home at Gulfport?*
A: Any officer or enlisted person of the Navy, Marines or Coast Guard who:

- Served honorably;
- Is unable to support himself by manual labor;
- Is ambulatory and in good physical and mental health; and
- Can care for himself and his rooms.

Q: *Are women eligible for admission to the Home?*
A: Yes. Women sea service veterans—officer and enlisted—are eligible for admission, providing they meet the above requirements.

Q: *Are married couples accepted as residents of the Naval Home?*
A: Yes. However, the Naval Home does not have quarters for joint occupancy. The husband, therefore, is assigned to a room in the men's section of the Naval Home and the wife to a room in the women's section.

Q: *What are the entry fees or charges for residents in the Naval Home?*
A: None. Residents receive room and board, laundry service, haircuts, use of the pool and other recreational areas.

Q: *How is the Naval Home supported?*
A: It is an independent agency of the federal government whose annual expenses are part of the Navy's budget.

Q: *How does a person apply for admission?*
A: Write to: U.S. Naval Home, 01800 East Beach Boulevard, Gulfport, Miss. 39501.

Vinson Hall Eligibility

Q: *Who is eligible for admission to Carl Vinson Hall?*
A: Any retired officer of the Navy, Marines or Coast Guard, their wives, widows, husbands, or close dependents, providing they are in reasonably good health.

Q: *What are the entry fees or monthly service charges for residents in Carl Vinson Hall?*
A: The following table shows the current entry fees and monthly service charges for the different types of apartments. These amounts are subject to change.

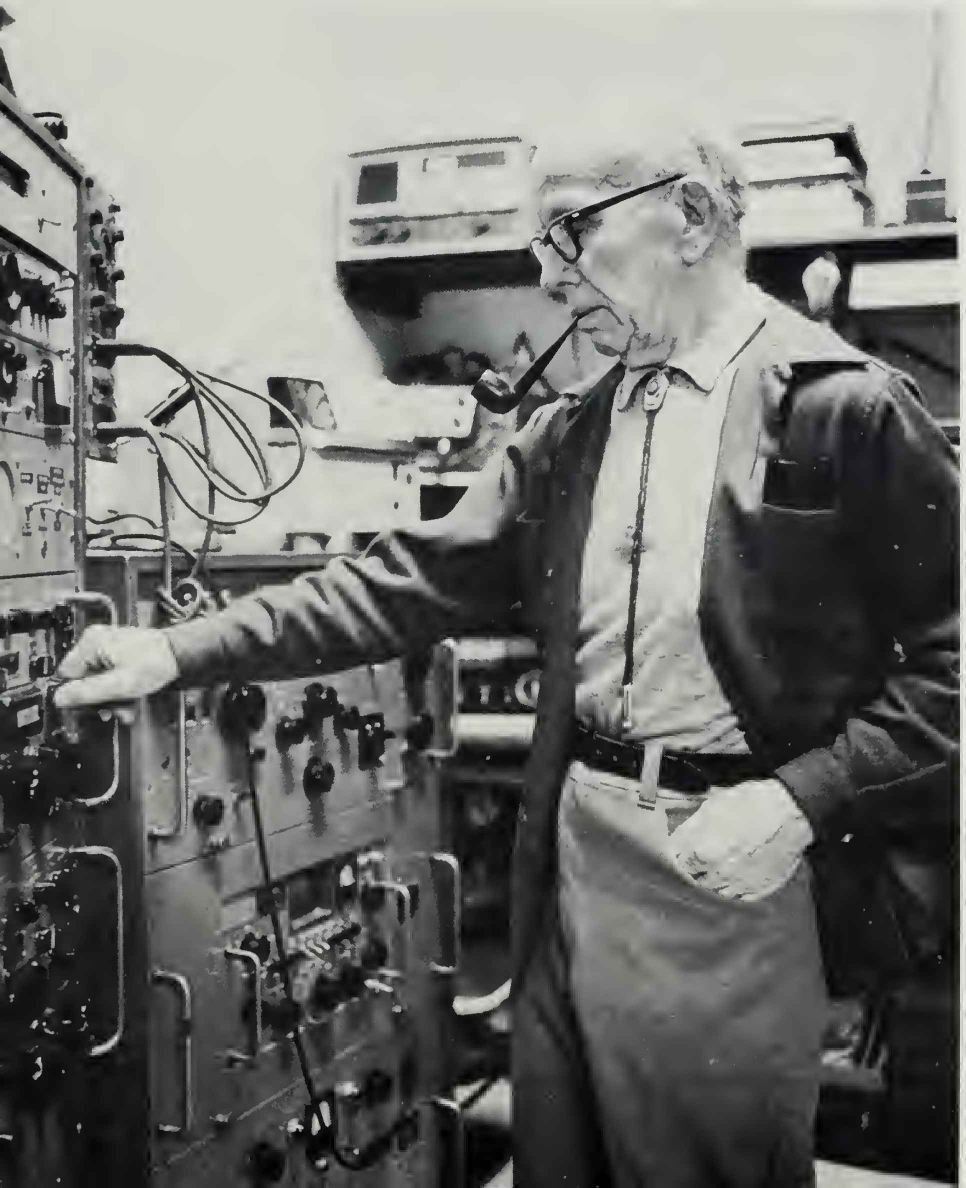
Unit	Entry Fee	Monthly Service Charge
Efficiency	$ 8,750	$257
Efficiency	9,400	280
One Bedroom	14,400	325
One Bedroom	15,000	355
One Bedroom	17,500	479
Two Bedrooms	19,400	502

Q: *Is financial assistance given to those unable to pay the entry fee or monthly service charge?*
A: Yes. Financial assistance is given to widows.

Q: *May a resident remain at Carl Vinson Hall even though he or she becomes unable to continue paying the monthly service charge?*
A: Yes.

Q: *How is Carl Vinson Hall supported?*
A: The Hall is supported by a private foundation at no cost to the government.

Q: *How does a person apply for admission to Carl Vinson Hall?*
A: Write to: General Manager, Carl Vinson Hall, 6251 Old Dominion Drive, McLean, Va. 22101 ⚓



Mail Buoy

There's a Difference

Sir: I read with interest the article in the January edition of All Hands—"Romeo Close Up." However, I do believe you made an error in saying the bosun of the watch and also *Page's* bosun trips the pelican hook. There is a tremendous difference between a bosun (Bos'n) and a boatswain. *Milwaukee* most likely has a Bosun (Bos'n) on her, probably a CWO2 or CWO3. Normally the person who passes the word is a leading boatswain's mate striker or rated boatswain's mate. I have never heard of or run across a bosun on an FFG. I feel certain that the person who tripped the pelican hook on the *Page* was either a rigger (seaman) or the rig captain (a leading seaman or rated boatswain's mate).

There is a lot of pride and professionalism along with tremendous hazards in CONREPS and refueling operations. People who are engaged in these activities notice small errors in stories as these. Though we Navy people in these jobs do enjoy reading them I feel more pride in knowing that the professionals who write the articles will ensure that every detail is taken care of. I know it would please myself and probably ease the mind of the Bos'n on the *Milwaukee* to know that CWOs don't have to pass the words over the 1MC nor trip pelican hooks.—C. L. L. Armenter, CWO2, USN

- *You're absolutely right. CWOs don't have to pass the word over the 1MC nor trip pelican hooks; boatswain's mates do.*—Ed.

Boat Gongs

Sir: Several former Navy men were discussing honors and ceremonies when the question of "Boat Gongs" came up. Could you give us some information on the origin of gongs over the 1MC announcing the arrival/departure of commanding officers and others? When did it start and is there an established procedure for the number of gongs for a specific rank or office?—Roy Cella, Salt Lake City, Utah.

- *A search of the records in the Navy Department Library revealed no specific date when the practice of announcing the arrival of officers with boat gongs first came into use. However,* Naval Customs, Traditions and Usage *by Vice Admiral Leland P. Lovette, USN (Ret.), offers a possible clue:*

> *"A most interesting custom still remembered by older officers of the retired list was that of using lanterns after dark to light the way from the gangway to the hatchway leading to the officer's quarters. The anchor watch lined up and held six lanterns for the admiral, four for the captain and two for a wardroom officer. . . ."*

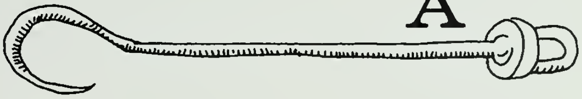
The established procedures of boat gongs today are intended to keep ship's company informed on the arrival and departure of certain officers. It is not a part of prescribed side honors. The number of gongs corresponds to the number of side boys the officer would rate: vice admirals and above rate eight bells; rear admirals six; captains and commanders, four; lieutenant commanders and below, two. Normally, lieutenant commanders and below are not announced with boat gongs unless they are commanding officers.—Ed.

Reunions

- 26th *Naval Construction Battalion Assn.*—Reunion 5-8 Oct., 1978, in Louisville, Ky. Contact Harry Friedrich, 3671 Mockingbird Ln., Dayton, Ohio 45430.
- *River Patrol Force* (Gamewardens of Vietnam Association Inc.)—Reunion 26 Aug. 1978 in Norfolk, Va. Contact YNCS John C. Williams, P.O. Box 5523, Virginia Beach, Va. 23455.
- USS *Vogelgesang* (DD 862)—Possible Reunion for commissioning crew and those who saw duty in her from 1945-1950. Contact "Rebel" Graham, 3936 Iowa St., San Diego, Calif. 92104.
- USS *Seahorse* (SS 304)—Reunion 2 Aug. 1978 at Sub Vet. WWII Convention in Norfolk, Va. Contact Paul E. Alexander Sr., 4050 Travona St., Redding, Calif. 96001.
- USS *Topeka* (CL 67)—Reunion for those who served onboard from 1944-1949, in Dallas, Tex., Aug. 11-13, 1978. Contact James W. Wilson, 618 Abbott St., Muncie, Ind. 47303.
- USS *Manning* (DE 199)—Reunion Oct. 20-22 at Bessemer, Ala. Contact Denzel J. Skerven, 1921 Lincoln St., Wisconsin Rapids, Wis. 54494.
- USS *Sealion* (SS 195)—Reunion 3 Aug. 1978 at Norfolk, Va. Contact Frank W. Gierhart, 6063 Pawnee Dr., Cincinnati, Ohio 45224.
- *Patrol Squadron Eighty-Four* (VP 84)—Reunion planned for Oct. 1978 at Pensacola, Fla. Contact A. W. (Homer) Jones, P.O. Box 3195, Meridian, Miss. 39301.
- USS *Quincy* (CA 71)—Reunion 15-17 Sept. 1978 in Springfield, Mo. Contact Albert Levesque, 46 Foster St., Pawtucket, R.I. 02861.
- USS *Fletcher* (DD 445)—Reunion in July 1978 in St. Louis. Contact Keith E. Snyder, Rd. #1, Box 167E, Keeseville, N.Y. 12944.
- UDT/SEAL—9th annual reunion, July 14–16. Contact Robert P. Clark, P.O. Box 5365, Virginia Beach, Va. 23455.
- NMCB NINE—Annual reunion at the Seabee Park, CBC, Port Hueneme, Calif., on June 24 from 1200 to 1800. Contact M.J. Olson, 5025 Thacher Rd., Ojai, Calif. 93023.
- USS *Laffey* (DD 459/724)—Reunion planned in New Orleans, La., mid-April 1979. Contact Cy Simonis, 3645 Farm Ranch Rd., South Bethpage, N.Y. 11714.
- USS *Velocity* (AM 128)—Reunion in New Orleans, La., on July 29. Contact William J. Anderson, P.O. Box 525, Taylorsville, Miss. 39168.
- USS *Gwin* (DD 433)–Reunion in New Jersey for all WWII shipmates, July 13–15 1979. Contact John S. Kozma, 80 Dick Street, Clifton, N.J. 07013.
- USS *Emmons* (DD 457)—Reunion in New York, October. Contact Dave Jensen, 87–26, 259 Street, Floral Park, N.Y. 11001.
- USS *Vincennes* (CL 64/CA 44)—Reunion at Vincennes, Ind., Aug. 7-9, 1978. Contact Peter H. Capp, 29 Myrtle Ave., No. Plainfield, N.J. 07060.
- PC 1137—Reunion June 17–18 in Pequot Lakes, Minn. Anyone who served onboard this vessel is welcome. Contact Loyal W. Chamberlain, 329½ Ave. B., Snohomish, Wash. 98290.
- USS *Pittsburgh* (CA 72)—Reunion in Chattanooga, Tenn., July 21-23. Contact J.C. Ayers, Box 74, Wildwood, Ga. 30757.

Stern Shots

A hull technician uses a hammer and a boatswain's mate uses a pipe. Regardless of the type work to be done, a Navy craftsman must have the correct tool to do the work properly. Take a look at the tools shown below and try to identify the rating in which the tool is used.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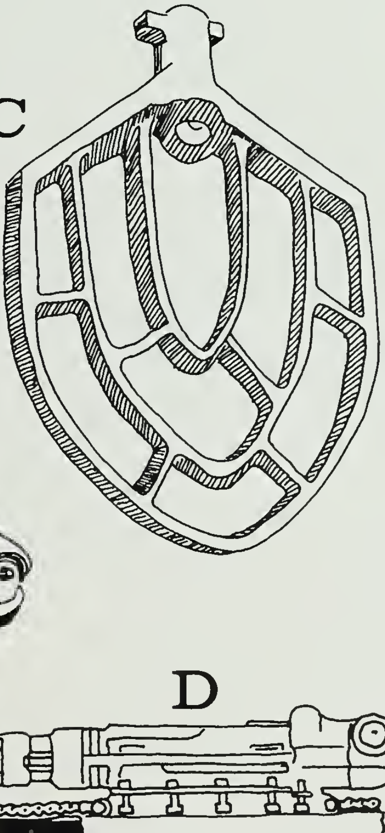
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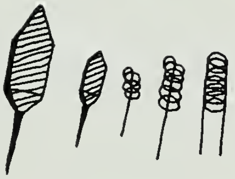
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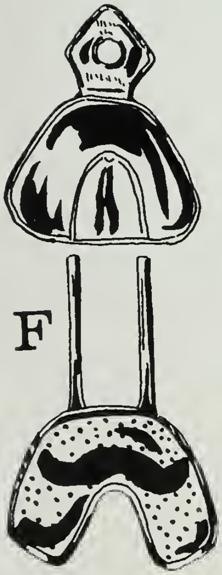
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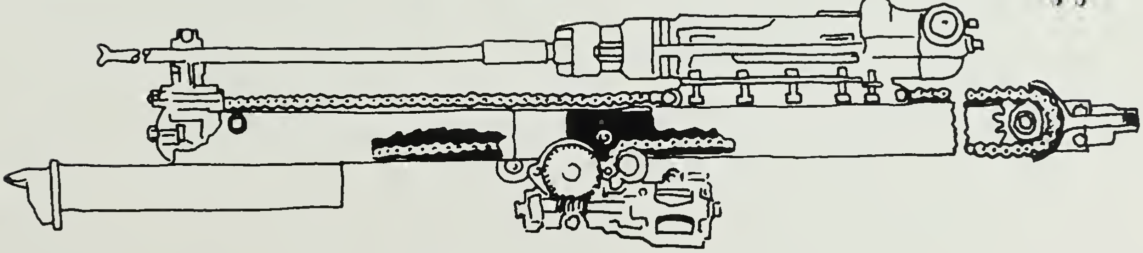
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Answers: A — Bench Hook — BM; B — Hand Remover — IM; C — Mixer Attachment — MS; D — part of a Crawler-Mounted Rock Drill — EO; E — Pyrometer — EN; F — Impression Trays — DT; G — Internal Chills — ML; H — Bench Knife — PM

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David Porter

Commodore USN

NOT UNTIL THE PIRATES WERE WELL WITHIN RANGE DID PORTER SURPRISE THEM WITH A DEVASTATING BROADSIDE. THE SHRIEKS OF PAIN AND CONFUSION THAT FOLLOWED ONLY SLOWED THE ATTACK MOMENTARILY. REGROUPING THEY CONTINUED THE ONSLAUGHT, EVER REPLENISHING THEIR LOSSES FROM WHAT SEEMED AN INEXHAUSTIBLE SUPPLY OF MEN WAITING ON THE BEACH. MANY SAVAGE ATTEMPTS TO BOARD WERE DESPERATELY REPULSED BY THE AMERICANS.

THE YEAR WAS 1800. THE *USS EXPERIMENT*, A TOPSAIL SCHOONER CONVOYING A GROUP OF MERCHANT SHIPS CAME UNDER SIEGE BY THIS HORDE OF WEST INDIAN CUTTHROATS, KNOWN AS PICAROONS. WHILE UNFORTUNATELY DRIFTING IN A CALM NEAR SANTO DOMINGO ISLAND, THESE HEAVILY ARMED FREEBOOTERS PUSHED FROM SHORE IN 10 BARGES. EACH CARRIED BOW-MOUNTED 4 POUND CANNON. THIS FEARFUL SIGHT PLUS THE EXISTING CALM WHICH PREVENTED ANY MANEUVERABILITY CONVINCED THE CAPTAIN THAT ANY ATTEMPT TO RESIST WOULD BE FUTILE. LT. PORTER ARGUED SUCCESSFULLY AGAINST THIS NEGATIVE THINKING AND TOOK RESPONSIBILITY FOR THE CONVOY'S DEFENSE. HE DISGUISED THE *EXPERIMENT* AS A DEFENSELESS LOOKING MERCHANT SHIP TO DRAW THE PICAROONS AWAY FROM THE MORE DISTANT VESSELS. THE TRICK WORKED AND THE FRENZIED ACTION LASTED FOR SEVERAL HOURS BEFORE THE PICAROONS FINALLY WITHDREW IN DEFEAT. HOWEVER, THEY WERE NOT COMPLETELY UNREWARDED. TWO MERCHANT SHIPS, THAT HAD BEEN ABANDONED BY THE CREWS, DRIFTED OUT OF RANGE OF PORTER'S PROTECTIVE GUNS AND WERE TAKEN BEFORE A BREEZE FINALLY CARRIED THE REST OF THE CONVOY TO SAFETY.

PORTER CONTINUED ON TO SERVE WITH DISTINCTION AGAINST THE FRENCH, THE TRIPOLITAN PIRATES AND THE BRITISH IN THE WAR OF 1812. HIS REPUTATION FOR BRAVERY AND COMPETENCE GREW WITH GREAT MOMENTUM. IT WAS SAID THAT HIS CHARACTER WAS SIMILAR IN MANY RESPECTS TO THAT OF JOHN PAUL JONES AND ANDREW JACKSON. TO UNDERSTAND THIS, ONE ONLY HAS TO REVIEW PORTER'S CRUISE IN THE *ESSEX* DURING THE WAR OF 1812.

IT WAS UNFORTUNATE THAT HIS ZEAL TO UPHOLD THE HONOR OF HIS COUNTRY SHOULD CHANGE THE WHOLE COURSE OF HIS CAREER. BY THEN A COMMODORE, HE WAS AGAIN OPERATING AGAINST THE WEST INDIAN PIRATES. HIS DECISION WHICH COMPELLED SPANISH AUTHORITIES IN FAJARDO, PUERTO RICO TO APOLOGIZE FOR THE UNWARRANTED JAILING OF A NAVAL OFFICER BROUGHT PORTER A COURT-MARTIAL CONVICTION. HUMILIATED, HE RESIGNED AND BECAME COMMANDER OF THE MEXICAN NAVY IN 1826. AFTER PORTER'S RETURN TO THE U.S. IN 1829, HE ACCEPTED A POST IN THE DIPLOMATIC SERVICE. HE EVENTUALLY BECAME MINISTER IN CONSTANTINOPLE IN 1839. HE REMAINED THERE UNTIL HIS DEATH IN 1843 AT AGE 63. PORTER HAD THE DISTINCTION OF GIVING THE COUNTRY TWO FAMOUS NAVAL OFFICERS, HIS SON, DAVID DIXON PORTER AND HIS ADOPTED SON, DAVID GLASGOW FARRAGUT.

ALL HANDS

JULY 1978

Sister Cities Visits - See Page 20

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ALL HANDS

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JULY 1978 NUMBER 738

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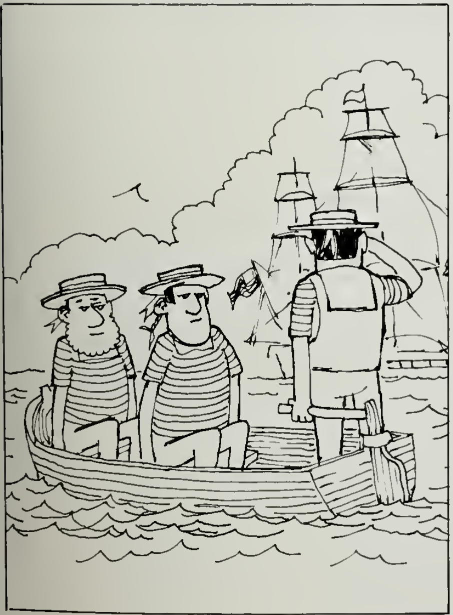

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Covers

Front: Visitors aboard the frigate USS Valdez *(FF 1096) during a call at Guinea-Bissau in West Africa. Photo by PH2 Dave Longstreath.*

Back: An antenna at the Naval Radio Station, Sugar Grove, W. Va. See page 24. Photo by PH2 Jim Preston.

At left: SA William Henry beams with pride as he joins three of his brothers following his graduation from recruit training at NTC, San Diego. Two other brothers are stationed at Subic Bay, R.P., making a total of six in Navy uniform (left to right: Richard, William, Robert and Douglas). Photo by PHC Jim Bell.

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Currents

Energy Conservation Awards Program Established ● In an effort to promote excellence in energy conservation and management within the Department of the Navy, the Secretary of the Navy will grant annually seven energy conservation awards to various ships, aircraft squadrons and Navy and Marine Corps shore activities. The awards will be presented for outstanding energy conservation and energy resource management accomplishments during the preceding fiscal year with the exception of the first award which will cover the period FY 73 through FY 77. Specific recognition will be given for outstanding leadership in energy conservation matters, innovations in development of new equipment or modification of existing equipment to improve energy efficiency as well as day-to-day operations, maintenance and housekeeping. The seven classifications eligible for awards are large ships, small ships, aviation squadrons, large Navy shore activities, small Navy shore activities, Marine Corps activities and naval industrial facilities. The first award will be announced on Sept. 1, 1978, with subsequent winners named annually on March 1. Further details are available in SECNAV Instruction 4100.8.

Gas Turbine Systems Technician Rating Established ● A new Gas Turbine Systems Technician (GS) general rating with GSE (electrical) and GSM (mechanical) service ratings will be implemented Oct. 1, 1978. The decision to implement the new rating was made last month by the Rating Review Board at the Bureau of Naval Personnel. Paygrades E-4 through E-7 will be eligible for the GSE and GSM service ratings and E-8s and E-9s will be eligible for the GS general rating. Details on the scope of the rating, occupational standards, path of advancement and conversions will appear in an upcoming BUPERS notice.

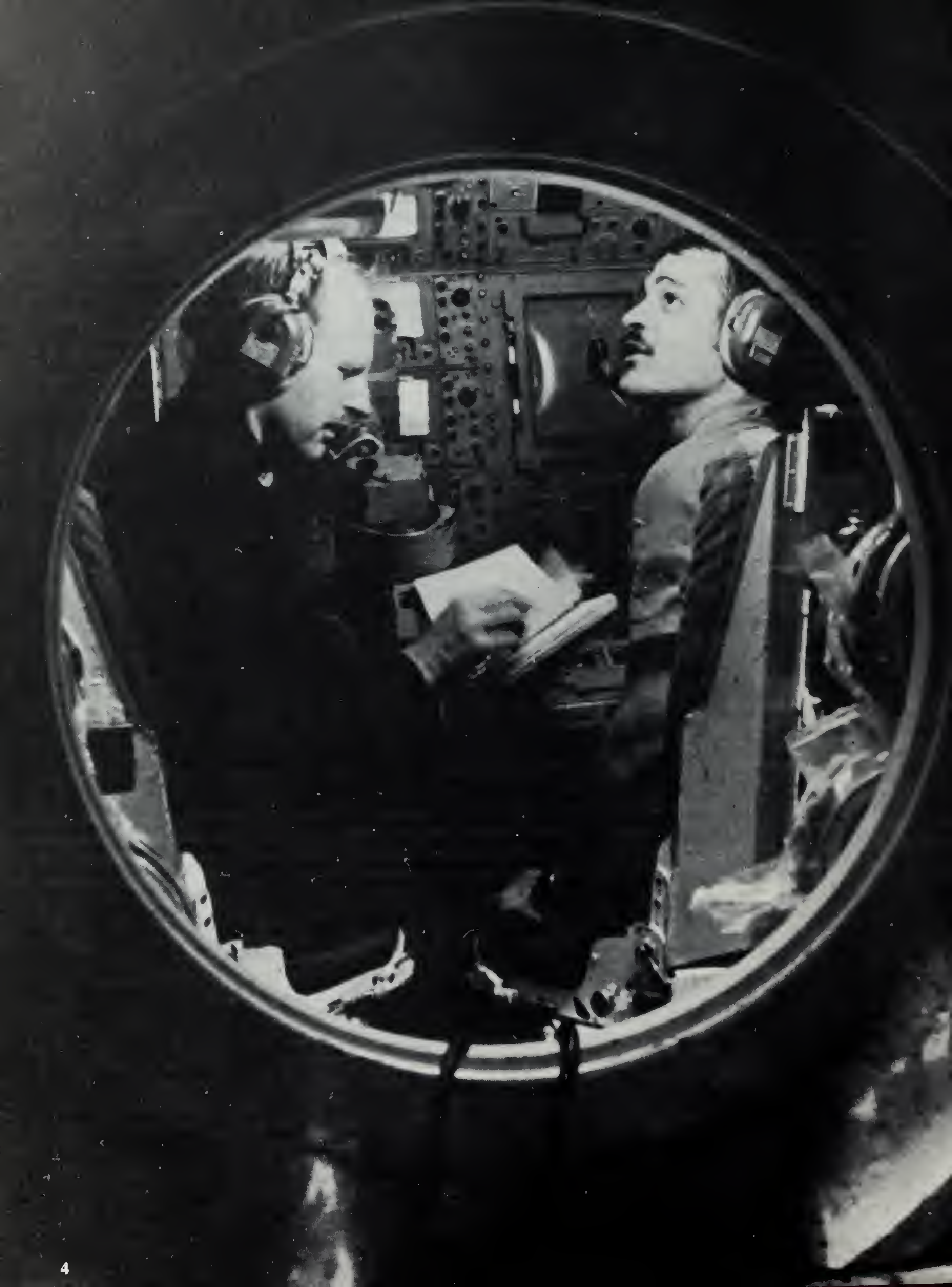
New SWOS Department Head Curriculum Inaugurated ● A new curriculum with increased emphasis on fundamental technical subjects will be conducted for the class of the 59th Surface Warfare Officer School (SWOSCOL) department head course which convened May 26, in Newport, R.I. The revised 32-week curriculum, which had been under development for 18 months, consists of a common core of instruction for all prospective department heads in engineering fundamentals, combat systems fundamentals, tactical action officer training and shipboard management. Following this common core, prospective engineer officers will receive specialty training followed by three weeks at the 1200 PSI hot plant at Great Lakes, Ill. Prospective combat systems, operations and weapons officers will receive combat systems specialty training to include three weeks of Engineer Officer of the Watch (EOOW) training on the new 1200 PSI propulsion plant simulator at the Surface Warfare Officer School Command at Newport, R.I.

Navy Voting Campaign 1978 Under Way ● "A jealous care of the right of election by the people " is an essential principle of government, according to President Thomas Jefferson. With this sentiment in mind, the Navy is kicking off its 1978 voting information program in an effort to emphasize the importance of voting as a means of participation in our government. Naval activities have been directed to select a voter assistance officer and voter assistance teams composed of voting counselors at a ratio of approximately one for each 30 crew members. The voting assistance program consists of three milestones. The first is direct contact with each member of the command to discuss individual registration status and necessary steps to comply with the requirements of each home state. The next milestone is a highly publicized drive to get out the vote using radio, television and station newspapers. On Sept. 7, 1978, designated Armed Forces Voters Day, the program passes its third milestone. On this date, two months before the Nov. 7 general election, commands will have the opportunity to focus attention on absentee voting for the general election. Additional information on Navy voting campaign 1978 is contained in BUPERS Notice 1741 of May 8, 1978.

First Two-seat Corsair Delivered ● The first of 60 new two-seat TA-7C *Corsair* II jet aircraft was delivered to NAS Lemoore, Calif., last month as the first modified training version of the A-7 entered fleet service. The TA-7C is a redesigned A-7 aircraft with a second cockpit for the flight instructor and is expected to save in training costs while improving flight training effectiveness. (See article in March 1978, *All Hands.)* The TA-7C will be used in all phases of training except for the pilot carrier qualification phase which will continue to rely on the A-7.

LTJG Promotion Policy Clarified ● The Bureau of Naval Personnel has issued clarification on the dates ensigns are to be promoted to lieutenant (junior grade). Ensigns may be promoted to LTJG on an all-qualified basis by the commanding officer on the day following completion of 24 months commissioned service. This is computed from the ensign date of rank rather than date of commissioning since the two frequently are different dates. Proper procedures are contained in SECNAVINST 1412.64.

SECNAV Mess Awards Winners Named ● Winners of the Secretary of the Navy competition for best mess in 1977 have been named in each of five categories. They are: Commissioned Officers' Mess Open, NAS Oceana, Va.; Chief Petty Officers' Mess Open, NAVPHIBASE Little Creek, Va.; Petty Officers' Mess Open, NAVSTA Rota, Spain; Enlisted Mess Open, NAVSTA San Diego, Calif.; Consolidated Mess Open, NAVORDFAC Sasebo, Japan. The Chief Petty Officers' Mess at Little Creek, Va., is a third time winner (1974,75,77) and the Enlisted Mess at NAVSTA San Diego, Calif., is a winner for the second time (1975, 77).



DSRV-
Constant training in case of emergency

BY JO2 SCOTT DAY

Ready to respond instantly to an undersea emergency, the U.S. Navy's Deep Submergence Rescue Vehicle (DSRV) stands poised at the North Island Naval Air Station. Actually, there are two such vehicles at the West Coast station, the *Mystic* (DSRV 1) and her sister craft *Avalon* (DSRV 2). They operate on an alternating two-month standby basis.

Mystic and *Avalon* are a far cry from earlier rescue apparatus, even the famed McCann Rescue Chamber which helped bring about the rescue of 33 of the 63-man crew of the submarine USS *Squalus* which plummeted to the bottom off Portsmouth, N.H., on May 23, 1939. The McCann chamber accommodates only a few men at a time; today's DSRVs can carry up to 24 rescuees per trip.

The DSRVs can be transported by air to a port nearest a disaster. They have a test depth of 5,000 feet, and their 16-member crews epitomize the peak of efficiency and professionalism.

Brought about as the ultimate method for rescuing the crew of a submarine immobilized on the ocean's floor, the DSRV is just one part of the overall rescue picture. Another part,

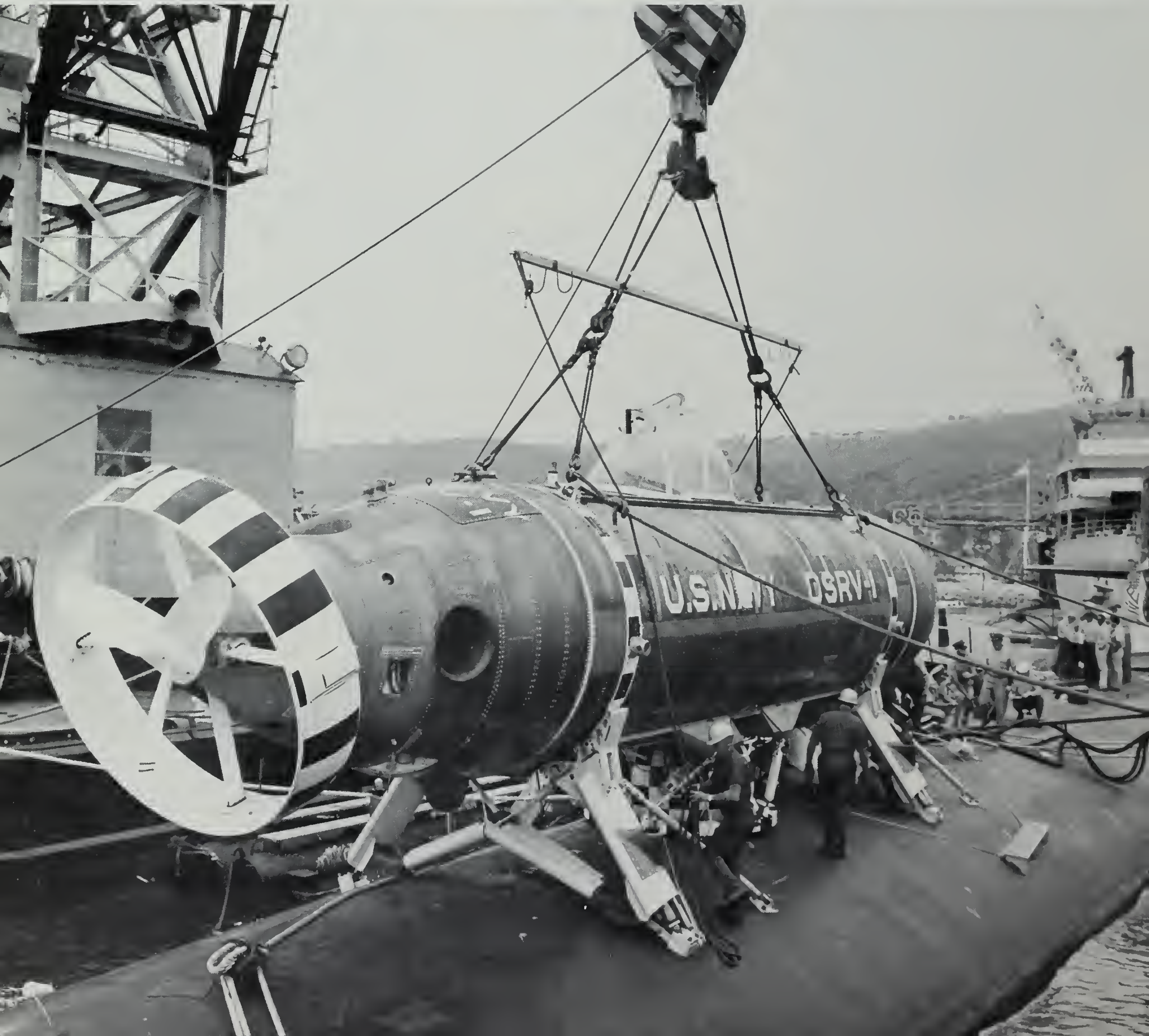
Left: Submarine Development Group One operates a Deep Submergence School for crew members and operators. Below: The DSRV, just one part of the overall rescue picture.

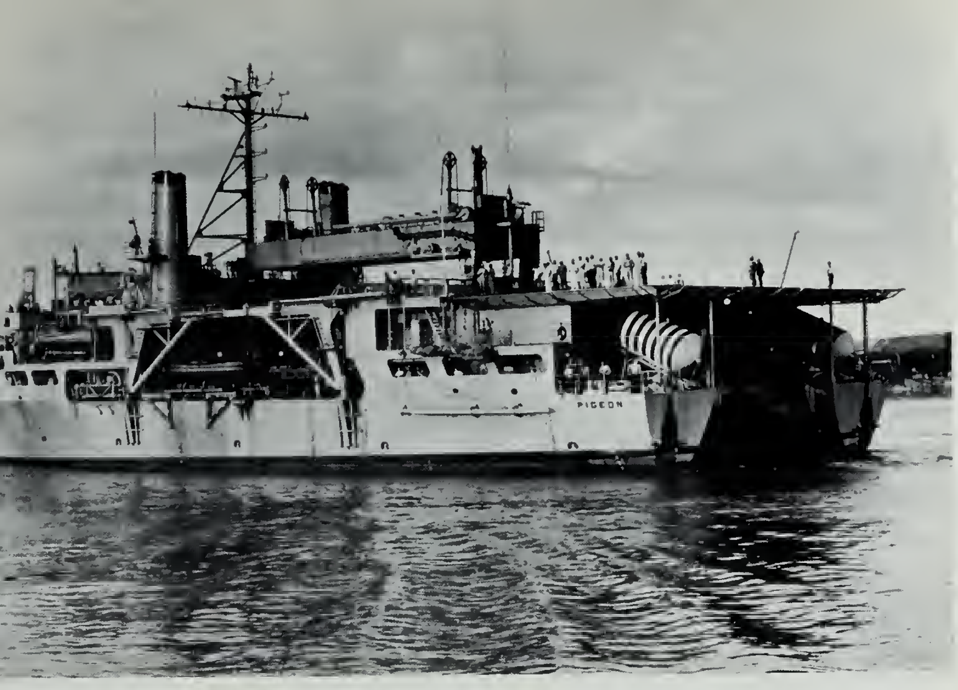
just as important, is the experienced, well trained crews manning *Mystic* and *Avalon*.

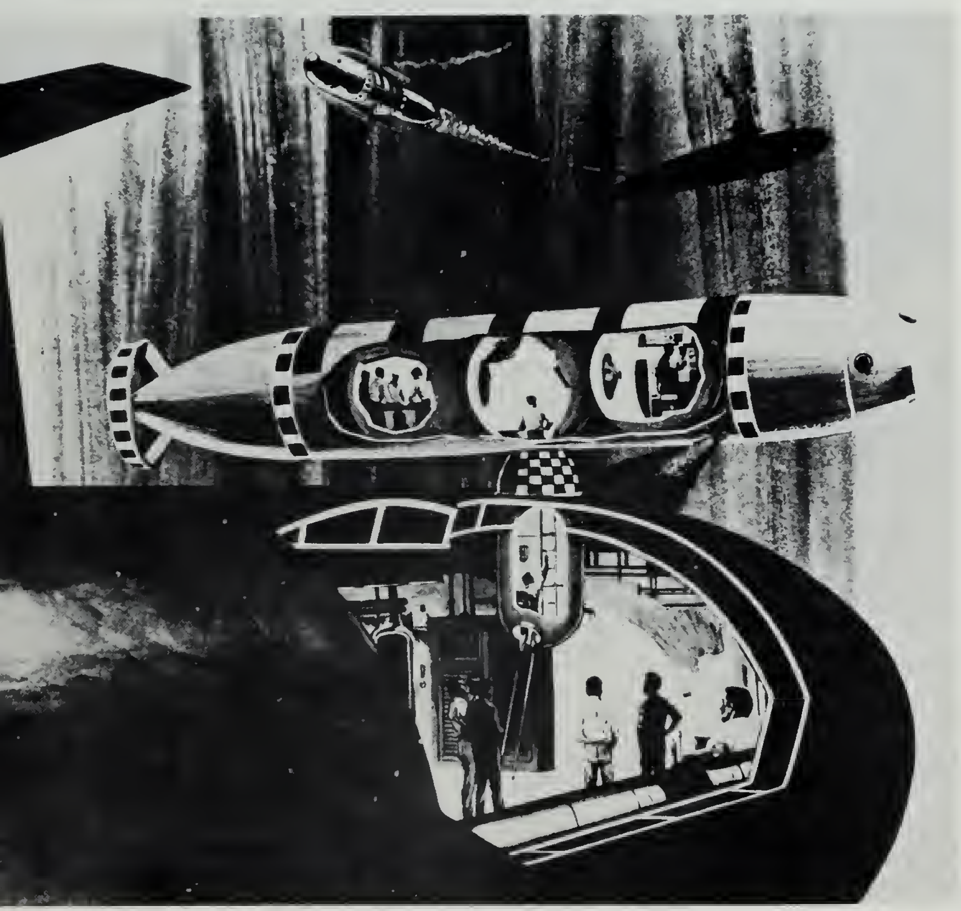
Lieutenant Richard Hall is Officer in Charge and operator of *Avalon*. "I was involved in the development of the DSRV. During that time I watched the initial design, and even had a chance to voice an opinion about some of the things that went into the vehicle," he said.

Each vehicle is supported by three officers and 13 enlisted men; all are

Right: The McCann Rescue Chamber in use off Portsmouth, N.H., during the 1939 rescue of 33 men from the disabled submarine Squalus. *Below: DSRV aboard a mother submarine outfitted to support the vehicle.*







Left: The USS Pigeon *(ASR 21), one of two submarine rescue ships of the same class outfitted to support the DSRVs. Below: Artist's concept of an on-site rescue.*

qualified submariners who have undergone special training for DSRV duty.

"Submarine Development Group One operates a Deep Submergence School," LT Hall explained. "They have a five-week crew member's course and a two-week operator's course.

"The operator's course teaches the techniques of navigation and shiphandling, and has an actual model of the DSRV control sphere in which the operator can simulate 'mating' to distressed submarines or to a 'mother' submarine. We also use that simulator for refresher training."

The DSRV is deceptive in appearance. As it rests in a cradle at the North Island Naval Air Station, across the bay from San Diego, it vaguely resembles a huge torpedo. But according to Chief Machinist's Mate Jerry Rose, the 50-foot craft is more akin to the space shuttle.

"I've been in the space shuttle," Rose says, "and when I walked into it I swore I had walked into our vehicle. The shuttle's a little more elaborate, but being a DSRV co-operator it was easy for me to pick out the different instruments."

LT Hall agrees, "The DSRV is like a spacecraft out of the earth's atmosphere. Its inertial navigation system is similar to that used on the *Apollo* spacecraft. DSRV has six degrees of freedom much like a spacecraft, which gives it the capability to move at any angle and direction.

"Whether you want to roll over 30 degrees and ascend at a 25-degree angle, or just hover in one position, DSRV can do it. You can literally do anything once it's submerged."

Constructed from an outer hull containing 26 layers of fiberglass, titanium framing, and a steel alloy pressure hull able to withstand 3,300 pounds of pressure per square inch, *Avalon* has submerged to a test depth of 5,000 feet, where pressures reach 2,250 pounds per square inch.

Combine the DSRV's sturdy hull with her Doppler sonar system, inertial navigation system, television cameras and her other navigational and obstacle avoidance sonars, and you have enough gadgetry to make Jacques Cousteau envious.

"I have no qualms about going down to 5,000 feet," says Electronics Technician First Class Stanley Osborne. "You get to see creatures down there that most people haven't seen. I had the good fortune of making a 5,000-foot dive when we had a scientist with a Ph.D. in oceanography aboard. Every time he would see something interesting through the viewports, we'd all get a chance to look at it."

The pressure hull consists of three interconnected steel spheres—each seven-and-one-half feet in diameter.

This craft carries a four-man crew on each mission.

The operator essentially controls the entire DSRV: surfacing, submerging, communicating, and searching. The co-operator assists in setting up sonars, video sensors, and hydraulic systems, while two life support technicians maintain environmental control in the vehicle.

If a sub is in trouble, the DSRV is flown to the port nearest the disabled vessel. Ports that can support the DSRV are tabulated together with corresponding airport runway lengths, widths and loadings, pier facilities, and the widths, clearances and corners of roads that the DSRV must use to reach the pier from the nearest airport.

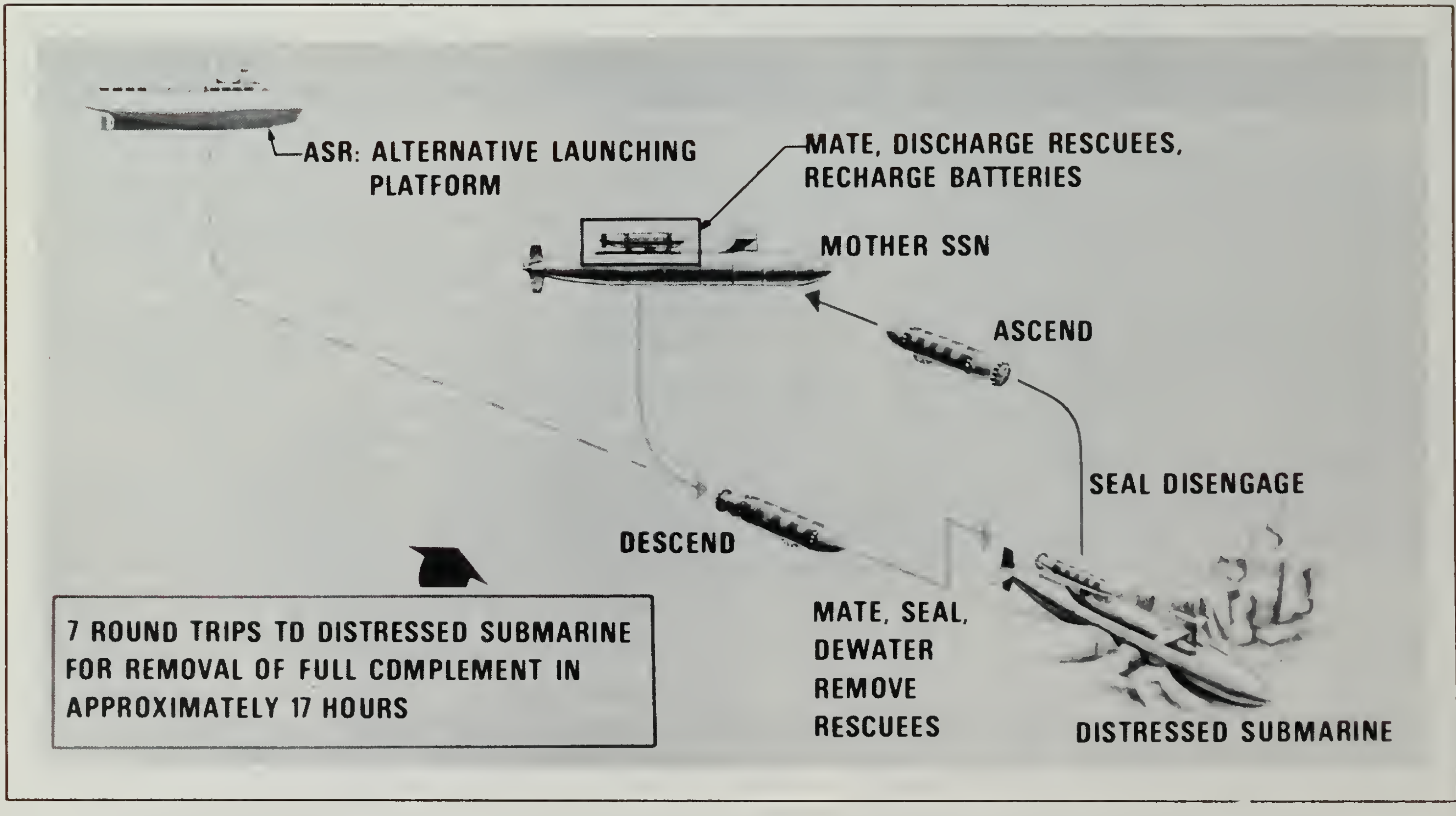
Once the rescue vehicle arrives, it is loaded onto a mother submarine, and transported piggyback to the disabled submarine's site. Alternately it could be carried by the submarine rescue ship of the *Pigeon* class. DSRV then descends to the disabled craft, and begins "mating." Debris or cables covering the submarine's hatch can be removed by the vehicle's manipulator arm.

DSRV "mates" by using a pump to dewater its hemispheric skirt, thereby creating a dry sealed passageway between it and the sub. Once the seal is secure, the transfer of personnel begins.

As men enter the mid and aft spheres their weights are recorded, and water from bags within the DSRV is poured into the disabled sub to compensate for the weight gain. This keeps DSRV neutrally buoyant.

Sonar Technician 1st Andy Ryan

Right: The 50-foot craft can be transported by air to a port nearest a disaster. Below: Steps during a DSRV rescue mission.


ASR: ALTERNATIVE LAUNCHING PLATFORM
MATE, DISCHARGE RESCUEES, RECHARGE BATTERIES
MOTHER SSN
ASCEND
SEAL DISENGAGE
DESCEND
MATE, SEAL, DEWATER REMOVE RESCUEES
DISTRESSED SUBMARINE
7 ROUND TRIPS TO DISTRESSED SUBMARINE FOR REMOVAL OF FULL COMPLEMENT IN APPROXIMATELY 17 HOURS

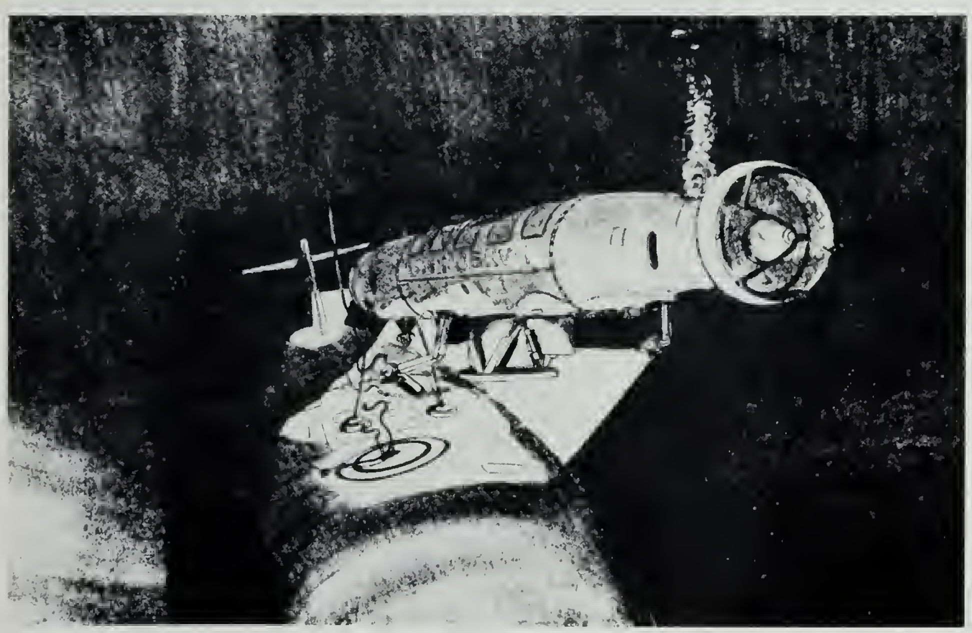
says, "I monitor each man for fatigue as he comes aboard. Most of the people coming off the sub will be suffering from emotional stress."

Once the rescuees are aboard, DSRV releases the seal, returns to the mother sub to unload her passengers, and is replenished to continue another shuttle trip of the rescue operation.

All new U.S. submarines are being built with a DSRV mating capability. Today, there are two *Pigeon* class submarine rescue ships and 12 mother submarines outfitted to support the vehicle. Detailed plans of the modifications needed for submarines and DSRVs to "mate" are being shared with other countries. And while today's nuclear submarines are unlikely to have a major casualty, Hall believes that the DSRVs could handle the problem.

Avalon's recent technical and operating evaluations confirm Hall's belief. In March 1977, *Avalon* simulated an actual submarine rescue mission. Using a simulated submarine hull off San Clemente Island in California, *Avalon* completed 10 consecutive successful "mates."

"Fortunately, we have not been called on yet in a real emergency, and we certainly hope it stays that way," Hall said. "But after successfully completing tough technical and operating evaluations, I'm confident that *Avalon* could handle any emergency." ⚓



Left: "Mating" with a distressed submarine. Below: Widths, clearances and corners of roads used from airport to pier must be known.

Send for 'Dr. All Thumbs'

For a woman who calls makeup junk, says it's too expensive and feels uncomfortable wearing it, Hospital Corpsman 3rd Class Venita E. Patterson has been known to take two hours completely covering her face with it.

That's when she steps into her role as "Dr. All Thumbs," the Navy's only broken-heart surgeon. She earned her make-believe degree from San Diego State University in 1975 when she studied to become a clown. The odd combination of buffoonery and medicine has a practical application.

"I knew I wanted to portray a doctor when I first started my clowning because of my interest in the medical field," says HM3 Patterson.

She is stationed at the San Diego Naval Regional Medical Center. She decided to take the college course in clownology to cheer sad and frightened patients in the pediatrics ward during her spare time. She has since found unlimited potential for use of her antics in patient care.

"When I was working in pediatrics, I found many of the techniques I had learned in clowning could be used to help put kids at ease before treatment," says Patterson.

You'll never be able to convince the hundreds of children in and around the naval hospital that Patterson's a corpsman and a nutritionist. They'll tell you she's Dr. All Thumbs, a funny doctor who cures frowns and sadness with love and friendship. As Patterson explains it, Dr. All Thumbs

is a person who enjoys seeing people happy.

Since becoming a clown, her fondest memory is of performing at an Easter picnic. "When I saw those kids suffering from leukemia and other cancers it was hard to keep smiling. But it was a chance to bring a little sunshine into their lives and help them forget their suffering."

A 1973 graduate of Albuquerque's Highland High School, Patterson joined the Navy three years ago. She has been fascinated with medicine since childhood and had compiled 300 volunteer hours at a therapy clinic by the age of 15. After boot camp at Orlando, Fla., she attended the 10-week basic corpsman school at Great Lakes, Ill.

"Right now," she says, "I want to be remembered as Venita. Dr. All Thumbs is someone I created with the help of others; HM3 Patterson is the working side of me.

"But as Venita, I'm both roles in one." ⚓

—Story and photos by PH2 Bob Weissleder.

Top: The young daughter of a Navy man beams as Dr. All Thumbs makes a visit to the doctor a happy experience. Bottom: HM3 Patterson examines a young patient in her real-life role as a pediatrics medical assistant.

Yangtze River Patrol

River Rats

BY JO2 DAN WHEELER

They're older now. Their hair is thinning and gray, and their uniforms fit a little too snugly. They are the surviving "sand pebbles," the 266 members of the Yangtze River Patrol Association. Each served with YANGPAT during the days of Chinese warlords and American "river rats."

The patrol was organized in 1854 to protect American business interests in China from terrorists, bandits and warlords operating along the banks of the 3,500-mile-long Yangtze River. After 87 years of sometimes boring, usually uncomfortable—often embattled—duty along the river, American naval presence in China ended with a two-word message: "YANGPAT DISSOLVED."

Here is a glimpse into that duty as told by the men who were there.

* * *

Duty on the Yangtze wasn't bonus duty, according to retired Rear Admiral Kemp Tolley, the association's historian and author of *Yangtze Patrol*. He said that dysentery and similar afflictions sometimes struck so many sailors and Marines that ships were unable to get underway for lack of crew. Heat, especially below decks, made life on the river unbearable and heat exhaustion commonplace. In one instance, as the steam sloop *Wachusett* plowed the Yangtze in 1866, her commanding officer died of heat stroke.

Throughout World War I and into the 1920s, patrol gunboats earned their keep by protecting American busi-

Remember...

nesses and citizens working and touring the Orient. It was an era of growing nationalism and anti-foreign sentiment in China. Petty warlords and bandits frequently attacked patrolling Navy and commercial ships in their search for booty.

"Those pirates were hard to believe," said Yangtze River Patrol Association President Arthur S. Boylesen, a retired chief petty officer. "They'd swim out at night and literally swarm unprotected ships, taking them over and looting them. To combat this, we posted Navy and Marine gun crews aboard whenever possible. I don't like to talk about this part, but I manned a machine gun against pirates—let's just say we effectively repelled them."

Nanking fell to Nationalists in 1927, becoming the capital of a united China. All foreigners were advised to evacuate. Besieged British and American outposts were in such danger that they frequently signaled their destroyers and gunboats: "We are being attacked. SOS SOS SOS."

Lieutenant Commander Roy C. Smith of USS *Noa,* acting on his own initiative, told his gunnery officer during one attack, "Well, I'll either get a court-martial or a medal out of this. Let her go, Bennie!" A barrage was

A gunboat of the USS Panay*-class cruises a river in the interior of China before World War II.*

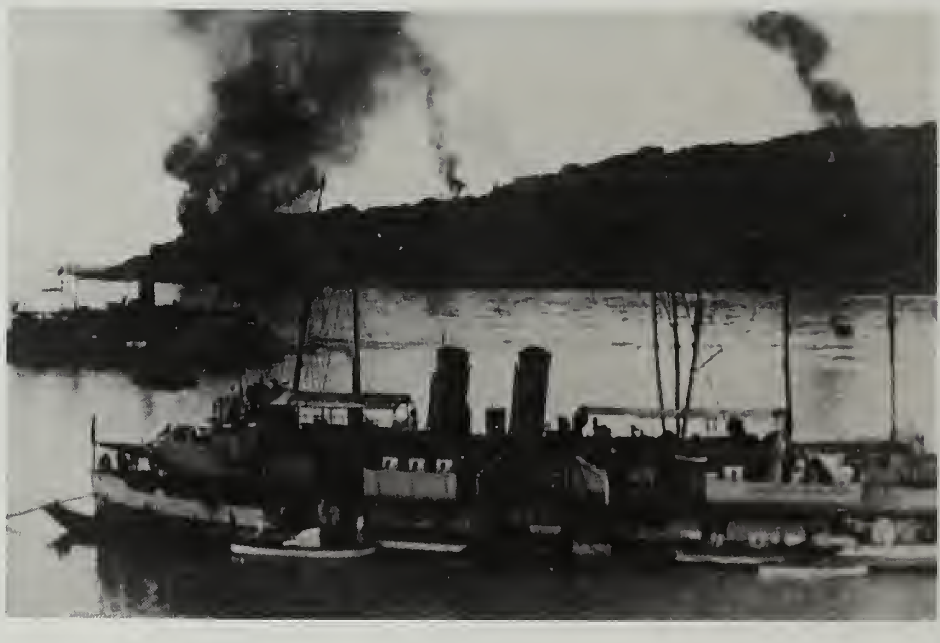
laid down and outpost civilian and military personnel were rescued from the Nationalists.

Uncommon initiative was common on the Yangtze. Lieutenant Commander John H. Geyer (Ret.), who was aboard USS *Pope* in 1928, said, "We were a big ship for the river. *Pope* was placed there for a show of force to keep warring armies of provincial warlords at bay. We were confident and cocky in those days and sure enough to do most anything. Even though we were hundreds of miles upriver, we never felt trapped."

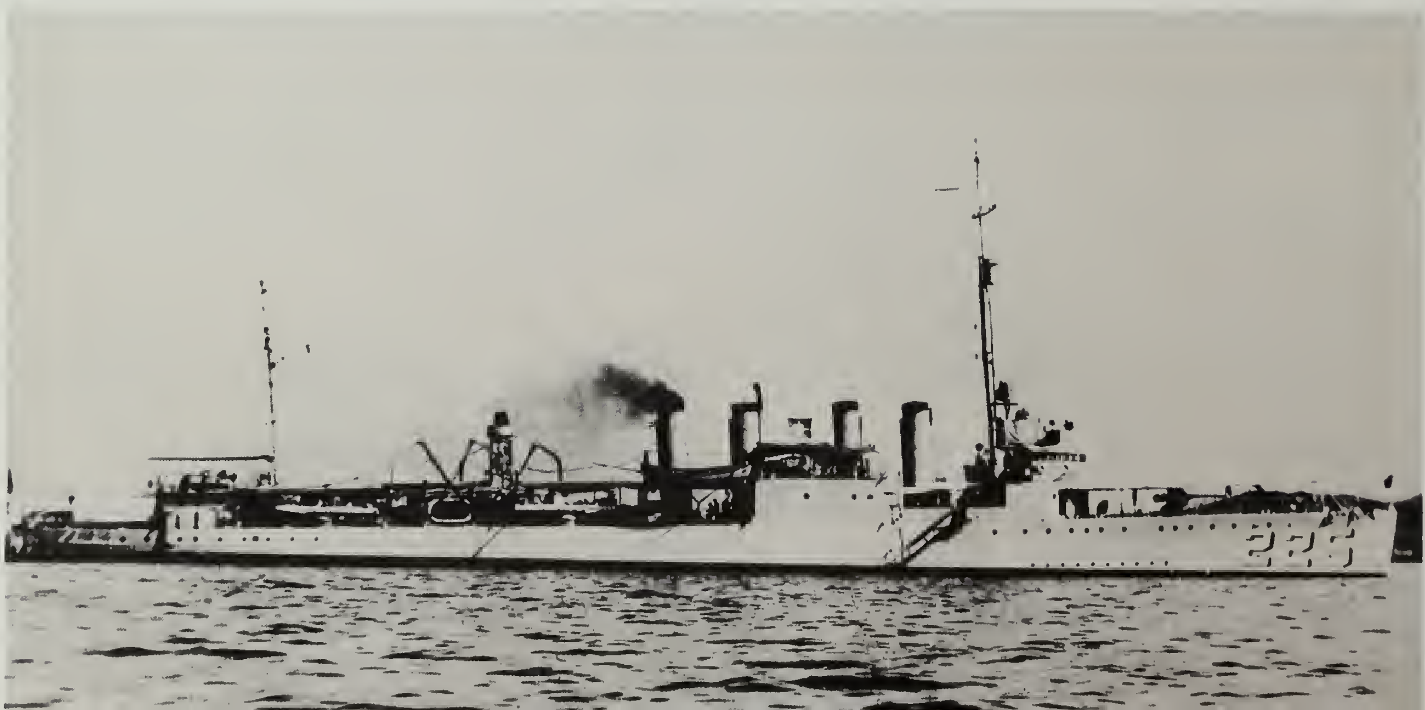
It wasn't all fighting, of course. "When we'd go ashore," Boylesen said, "we'd drink German beer and Sam Shue Chinese whiskey unless we were lucky enough to find a Marine Corps PX. Then we'd buy good ol' American stuff for $1.68 a fifth."

"Once, while in Hong Kong," said Julius L. Gerth, former Marine Corps first sergeant, "we were challenged by the British marines to a rifle match—a challenge we gladly and promptly accepted. I chose a team of Navy and Marine riflemen from USS *Wilmington*. Between us, we had the highest qualification scores on record. Needless to say, we whipped the British."

The last few years of the patrol's existence were probably the most exciting—the world was getting ready for



Top: A merchantman on the Upper Yangtze. Right: Gunboat Tutila *during a bombing at Chungking. Below: The four-piper destroyer USS* Pope *(DD 225) on station in China.*

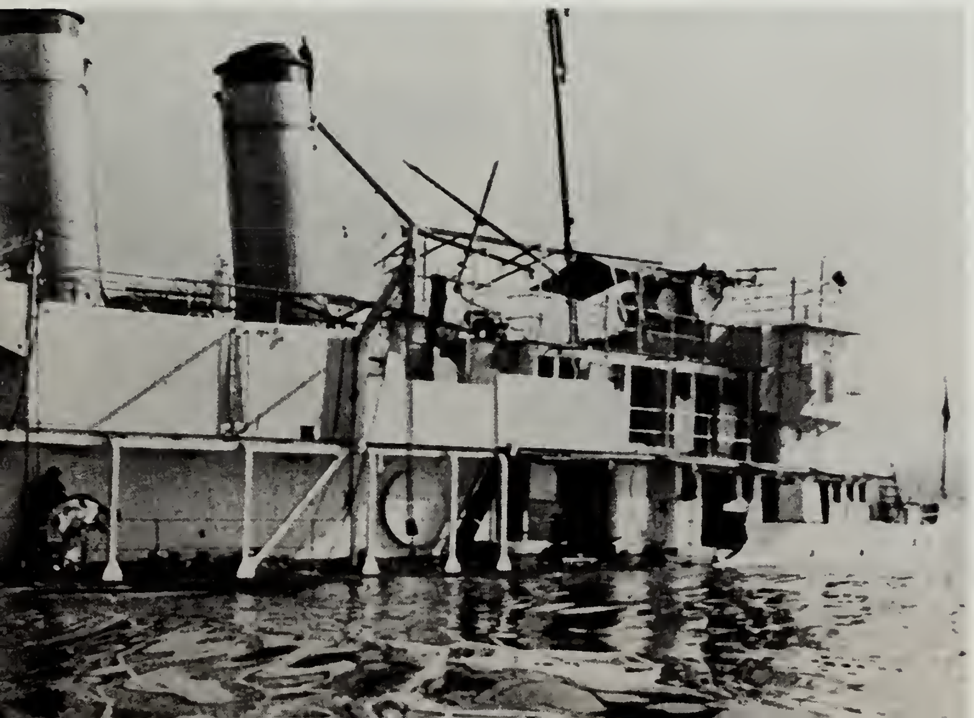


war and the Japanese had already made their move.

Nanking came under siege again in December 1937; this time by the Japanese. U.S. Embassy officials urged the few Americans remaining in the city to embark aboard USS *Panay*. The gunboat weighed anchor December 11, and moved upriver accompanied by three civilian tankers. *Panay* carried 15 evacuees, eight of whom were newsmen.

By 11 a.m., *Panay* and the tankers were anchored in what seemed a relatively safe spot about 27 miles from Nanking. Two hours later, *Panay's* bridge lookout spotted planes overhead and notified the commanding officer, Lieutenant Commander James J. Hughes. Hughes came to the bridge and saw six Japanese planes in a line heading upriver, yet he wasn't concerned—plane sightings were common. *Panay* was readily identifiable by her large ensign and the American flags painted on her fore and aft deck awnings.

As Hughes watched, however, three lead planes began to descend in the direction of the ship and suddenly went into a steep power dive. A chief petty officer was the first to react: "They're letting go bombs!"



Two hit *Panay*, wiping out the radio room and antenna, and opening cracks in the hull. Crewmen manned World War I-vintage machine guns and returned fire.

Panay was abandoned shortly thereafter. At 4 p.m., she slowly rolled to starboard and sank by her bow as the crew watched from the riverbank. Japanese planes then attacked the tankers while low-flying fighters machine-gunned survivors in lifeboats. Several hours later, the Japanese headed back upriver, leaving the Americans to carry their dead and wounded through swamps and over unfamiliar terrain to safety.

"We were ready to go to war right then," Boylesen said, "but later Japan apologized and paid an indemnity to the United States."

During the next few years, U.S. gunboats did double duty to protect Americans and their property. Patrols were frequently fired upon and hit by small arms and artillery from the beach. The monotonous early days had been replaced by more livelier times. "We were real soldiers of fortune," Boylesen said.

"The patrol retreated pell-mell to Manila in late 1941 before the relentless advance by the Japanese through China," RADM Tolley said. "I just got out of there by the skin of my teeth—literally snuck out of Shanghai the night of Nov. 29 in a desperate run for the so-called safety of the Philippines."

On Dec. 5, 1941, the two-star flag of Rear Admiral W. A. Glassford was hauled down and the Yangtze River Patrol dissolved. Another chapter in Navy history had ended. Two days later, the "sand pebbles" went to war.

—*Photos on page 15, courtesy of* U.S. Naval Institute Proceedings; *other photos, courtesy of RADM Kemp Tolley, USN(Ret.).*

Top: USS Panay *on patrol. Left: Gunboat* Panay *with decks awash, following fatal bombing by Japanese in December 1937.*

Bearings

Top Dollar Idea

Sonar Technician First Class Jeffrey VerBurg is $5,000 richer (minus $1,000 in taxes) because he had an idea the Navy was pleased to buy.

At a ceremony in the Pentagon, Secretary of the Navy W. Graham Claytor Jr. presented STG1 VerBurg with the $4,000 check for a suggestion VerBurg submitted which gave the Navy a towed array sensor seven years earlier than such a device had been anticipated. The check is one of the largest awarded to date for a beneficial suggestion.

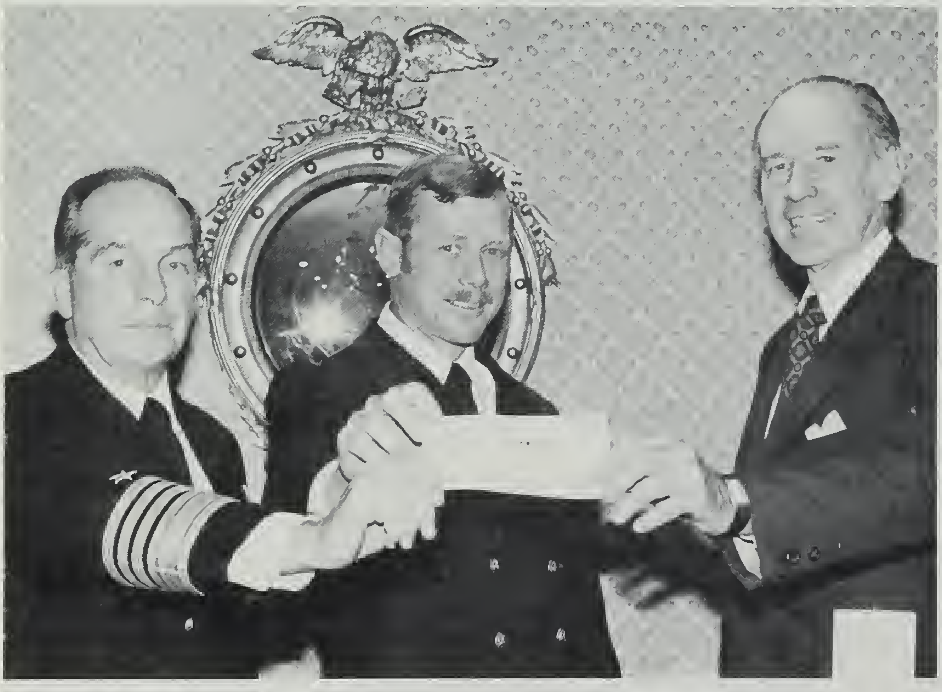
VerBurg's brainchild, called AN/SQR-18 TACTAS, is an anti-submarine sonar device which provides positive contact recognition at variable depths. It is a combination of several sonar systems, and can be used by surface ships traveling at high speeds.

VerBurg came up with his idea about six years ago while attached to Destroyer Development Group Two at Newport, R.I. With some cooperation from the Navy and from representatives of a commercial company, a prototype of his design was manufactured for the fleet in 1976.

According to the Navy Incentive Awards Board, "The extensive knowledge of equipment capabilities necessary to develop the suggestion is clearly beyond that normally expected of an STG2 and the measure of original thinking required could not be expected of any particular experience level." (VerBurg was a second class petty officer at the time.)

In addressing those at the ceremony, including VerBurg's wife, Phyllis, their two children and his father, Secretary Claytor said that "The latest issue of *Jane's Fighting Ships* states that even if the Soviets are numerically superior to us, they cannot match the quality of men and women serving in the U.S. Navy. This award ceremony helps point up that fact."

VerBurg is now serving as an instructor at the Fleet Training Center, Mayport, Fla.



(L-R): ADM L. J. Long, Vice Chief of Naval Operations, VerBurg, Secretary Claytor.

Forges New Path

Builder Constructionman Mariann Weber's interest in building and woodworking goes back to her sophomore year in high school when advisors suggested she fill an open period with a home economics class.

"That just didn't make it," BUCN Weber said. "I already knew how to cook."

So she signed up for a plastics class, then a woodworking shop, and in her senior year, vocational training. Now, one of six women in the BU rating, Mariann Weber's a Seabee at the Naval Support Activity, Naples. She works on emergency maintenance projects ranging from repairing heating ducts to providing electrical maintenance.

BUCN Weber didn't start with the Navy, but the service always was a part of her plans. She went to an Air Force recruiter first, but later decided on the Navy.

After completing "A" school for Builder, she went into the Seabee rating and requested overseas duty in Europe. Her first orders were to Naval Air Facility, Sigonella, where she took advantage of sightseeing tours and traveling.

"You don't need a lot of money to get around over here," she said. "I'm an E–3, over two, and there's so much to see and do but the cost is minimal."

BUCN Weber believes her "common sense, Midwestern farmland" background has helped her adjust to the local culture. In Naples, she lives in an apartment where a rooster wakes her up every morning.

After her tour of duty, Weber plans to attend college and major in industrial management or "a field that is begging for women."

"Those are the things I've got to play on," she elaborated. "I've got to take advantage of the things that I've got, and one of those advantages is the fact that I'm a woman."

—Story by JO3 Dana Lawhon
—Photo by PHAN Ted Salois

Boat of the Future

Scientists and engineers at the Naval Coastal Systems Center in Panama City, Fla., have pooled their inventive talents to design a pre-prototype model of an inflatable boat to replace the 25-year-old model currently used in the fleet.

It's called the Military Amphibious Reconnaissance System (MARS). The model has a silent propulsion system capable of transporting Marine Corps reconnaissance and Army special forces swimmers from a point some 20 miles at sea to shore and returning them to their ship or rendezvous undetected by the enemy.

One objective of MARS is to replace the existing IBS (Inflatable Boat, Small) by making use of new materials and technologies developed during the past quarter century. Requirements established by the Army, Navy and Marine Corps in early 1975 were refined and revised. The project, therefore, fulfills joint service operational requirements.

NCSC personnel became directly involved in the project in January 1977 under Bill McCrory, a mechanical engineer in the advanced development division of the diving and salvage department. Since one of the specifications was that the boat be built of polyurethane-coated Kevlar (a new material not available to the NCSC team but available to two other organizations working simultaneously to develop a new inflatable boat), the NCSC task team constructed their pre-prototype of neoprene-coated nylon. A contract was let to determine if Kevlar was indeed the best material.

Six months later, NCSC and the other two organizations delivered their pre-prototypes to the Marine Corps at Camp Pendleton, Calif. All three underwent exhaustive testing and NCSC's model was judged the best.

Bearings

Another unique feature is that it can travel at speeds up to 31 miles-an-hour because of a special keelson. A three-inch diameter aluminum pipe that traverses from transom to bow, the keelson has a cord in the center which, when pulled, allows it to collapse in sections for storing. In the final design, the keelson will be an integral part of the boat that is deployed upon inflation.

It is expected that a contract for construction of 12 prototypes will be awarded in August. Meanwhile, NCSC continues to test and revise their pre-prototype.

Strict Regimen

"By the time I arrive at work my brain is working at full capacity. That's why I do it in the morning when I need it the most," explained Captain Frank C. Collins Jr., commanding officer of the Development and Training Center, Fleet Maintenance Assistance Group, Pacific, at San Diego.

* * *

"It's almost habit forming. When you get into it, it's necessary every day or the day doesn't feel complete. It's as natural as sitting at a table and eating," commented Captain Bob Cowan. Two other naval reservists, Captain Ed Harris and Commander J. Geller, agreed.

* * *

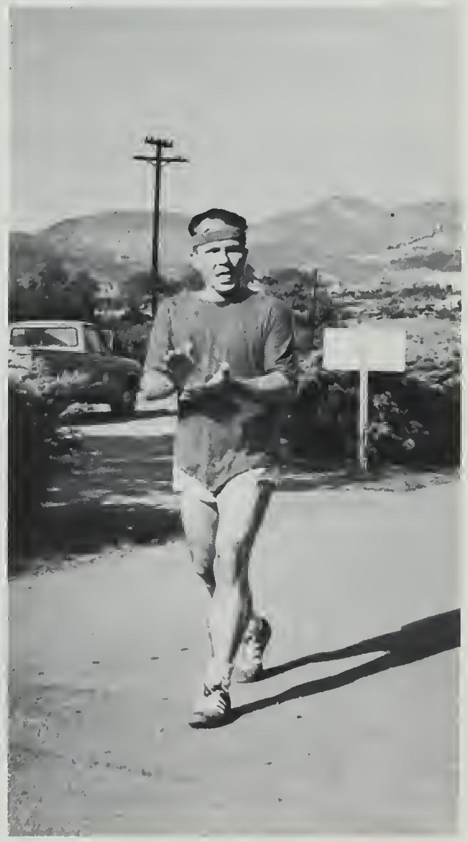
And in Singapore, 20 crewmen from the amphibious cargo ship USS *Mobile* (LKA 115) expressed it by setting a new world's record.

Although it's described and practiced in a variety of ways, it all boils down to the same thing—physical conditioning.

CAPT Collins rises daily at 5:30 a.m., does 250 toe-touches, 60 push-ups, 100 sit-ups, 100 leg-lifts and 25 deep-knee bends, and jogs for two miles. Then he eats breakfast and cycles 10 miles to work.

His activities and attitudes toward physical fitness have brought the captain a certain amount of fame in the form of five Super Five awards.

The Super Five award is given to anyone who receives a minimum of five 100-mile jogging membership letters (signed by his immediate superiors and based on points accumulated through an honor system) and a minimum of 25 500-, 750- or 1,000-aerobic point letters. Additionally, Collins has received four citations for bicycling 1,000 miles within a 90-day time frame. However, it's not the awards that inspire him to do what he does.



"My philosophy regarding physical fitness is relatively simple," he said. "As career military men, I strongly believe we should project a Spartan image. Physical fitness helps forestall coronaries. In general, it provides a vitality and tone to one's features which befit a professional military man."

The three reserve captains agree that physical conditioning is addictive and a daily necessity for both their mental and physical attitudes.

Cowan, Harris and Geller competed against 788 runners in the 1978 Houston Marathon in February. They didn't win the race but they all finished with times better than most in the over 40-year-old division.

"Conditioning is the most important element in running 26 miles," Geller said. "One must run one-third of a marathon (almost nine miles) every day for at least two months before the race."

All agree that the race starts to get tough around the 20-mile mark. "There, the legs, body and mind 'hit the wall' if conditioning is not right," Geller added.

The conditioning and fitness paid off for the three—they finished in just over three hours. They are currently training for more marathons.

Time also played an important role in an endurance test for 20 crewmen of the *Mobile*. They set a new world's record for the longest slow-pitch softball game—72 consecutive hours.

The game, played at the Singapore American School, began on December 28 and continued through December 31 despite hot, humid temperatures and torrential rain which, at one point, kept the teams drenched for more than 12 hours. Although the previous world record of 64 hours was broken in the early hours of the morning, the teams played until they reached their goal of 72 consecutive hours—in all, it ran 245 innings.

The score was 513 to 365—but who keeps score after 72 hours?

Ten Years Later

Ever hear of "Operation Golden Gun"? Not too many people have, although it is unclassified.

It began 22 years ago at the headquarters of the Barbados Regiment in Bridgetown, Barbados, West Indies, when a group of visiting yachtsmen decided that the Regimental Saluting Cannon would make a suitable souvenir. That was Feb. 26, 1956.

Shortly after the yachtsmen returned to the United States, an anonymous cable was sent to the Barbados Regiment, advising that the purloined piece was in good hands and resting safely in California; all they had to do was come and get it.

Needless to say, this was never done and over the ensuing years contact was lost with the captors of the cannon.

In 1968, there was an aircraft accident and the son of a Lakeside, Calif., man was killed. The father, while going over his son's estate, found a cannon and came across a newspaper article from the Bridgetown, Barbados, *Advocate*, describing the disappearance of the 400-pound cannon. Following 10 years of correspondence with officials and the regiment—comparing pictures, serial numbers, and the like—the cannon was positively identified as the missing piece.

Now the problem became, "How to get the cannon back to Barbados?" The Commanding Officer of the Barbados Regiment, Colonel Leonard A. Banfield, being clever and resourceful, invited Lieutenant Commander Charles E. Zettle, Commanding Officer of the U. S. Naval Facility, Barbados, to the 75th Anniversary Banquet of the Barbados Regiment. During the course of the evening, the colonel made a request of each of the honored guests. Of LCDR Zettle, he requested the return of the Regimental cannon.

At this point, "Operation Golden Gun" was born and soon became the object of the Navy's Can-Do efforts. Through the cooperation of Lieutenant Commander Lawrence E. Curran, prospective commanding officer of NAVFAC Barbados and the assistance of Lieutenant Commander Edwin F. Parsons Jr., Officer in Charge, Warner Springs, Calif., Detachment of Fleet Aviation Specialized Operational Training Group, Pacific, the wayward cannon was transported from Lakeside to NAS North Island.

Further logistics support was provided by a Patrol Squadron 45 (VP 45) training flight on Dec. 16, 1977, which carried the 51-inch artillery piece halfway home, from NAS North Island to NAS Jacksonville, Fla. There, custody of the somewhat green "Golden Gun" was given to Lieutenant Commander Joseph F. Phelan, of VP 30, a former NAVFAC Barbados, the West Indies, executive officer.

On Jan. 12, 1978, in a VP 30 P3B aircraft, on another training flight, piloted by Lieutenant Peter E. Blessing, the gun was escorted to its native land by LCDR Phelan and turned over to LCDR Zettle.

At Evening Parade that day, before the entire Barbados Regiment, COL Banfield accepted possession of the long lost Regimental cannon, reaffirming the warm relations and the spirit of cooperation between the United States Navy and its friends in Barbados.—*Otes W. A. Kearney III*

A Matter of Structure

Doctors Isabella and Jerome Karle, physical chemists at the Naval Research Laboratory in Washington, D.C., are one of the few husband-wife teams ever elected to the National Academy of Sciences, a private organization dedicated to the "furtherance of science and its use for the general welfare."

Dr. Isabella Karle, only recently elected to the academy, is head of NRL's X-ray analysis section in the laboratory for structure of matter. She is also the only woman physical chemist to be elected to the academy.

Dr. Jerome Karle, an academy member for two years, is chief scientist at NRL's laboratory for structure of matter.

VALDEZ - INCHON - SPRUANCE

PORT VISITS TO SISTER CITIES

BY PH2 DAVE LONGSTREATH

Standing on the bridge wing of fast frigate USS *Valdez* (FF 1096), a veteran pilot of 38 years on the river Geba closely scans the horizon for navigational markers. Selected by local officials, 67-year-old Joal Fonseca has been given the opportunity to guide what may be the first American warship ever to visit Guinea-Bissau in West Africa. During the 81-mile transit, often through shallow waters, Fonseca is confident. He says to no one in particular, "Joal Fonseca is aboard. There will be no problems."

The sun-baked, earth-colored buildings of the former Portuguese colony appear over the river's horizon. It has been an exceptionally exciting morning and as *Valdez's* crew members man the rail for entering port, a sense of anticipation grows.

What will the people be like? Will they like us? These are some of the unspoken questions in the minds of men aboard *Valdez*.

Unlike some of the North Atlantic and Middle Eastern ports visited by *Valdez*, the port of Bissau gave the officers and men of the 438-foot frigate a unique opportunity, a chance for discovery. Located between Senegal and Guinea, Guinea-Bissau is a newly established nation, having gained independence on Sept. 24, 1973, after 13 years of struggle. It has a population of over 700,000.

During *Valdez*'s three-day visit, crew members who went ashore gained considerable insight into the culture and heritage of the small nation. The reaction to the American presence was described by ship's commanding officer, Commander K. C. Jacobsen as "extremely curious and very friendly."

The skipper said the people in Guinea-Bissau compare their country to the United States just after the American Revolution. "They especially admire our Constitution and our Bill of Rights," he said.

Lieutenant Commander J. A. Roorbach II, *Valdez*'s executive officer, noted the warm reception given the ship. "The majority of our crew members found it to be a refreshing change from the many traditional ports of call," he said.

Valdez was open to public visiting two of the three days while in Bissau. At first there was but a trickle of visitors to the Charleston, S.C.-based ship. As the word went out to the local residents, the size of the crowds increased. During the two days of visiting, the ship's liberty boats pulled alongside the frigate time and again with more and more visitors. Throughout the tour, guides answered questions through Portuguese interpreters.

As part of a 10-week training and good will cruise, which included USS *Inchon* (LPH 12) and USS *Spruance* (DD 963), *Valdez* had been chosen to visit independently both Guinea-Bissau and Lome, Togo.

"This deployment will be something all of us aboard *Valdez* will remember for a long time," said CDR Jacobsen.

* * *

In other African, South American, and Caribbean ports, similar events had been taking place during the 15,000-mile training and good will cruise of the three U.S. Navy ships.

In Monrovia, Liberia, for example, Seaman Apprentice Andre Brantley, a crew member on the amphibious assault ship USS *Inchon* and a native of Dayton, Ohio, participated in a sister city ceremony on Feb. 9 during a three-day port visit to Monrovia by all three ships.

The ceremony was in the form of an official call on Mayor Edward David of Monrovia, by Rear Admiral James A. Sagerholm, Commander South Atlantic Force and Commander of Task Group 21.6. Acting in behalf of Mayor James H. McGee and the people of Dayton, RADM Sagerholm presented Mayor David with a sketchbook of historic Dayton scenes.

The sister city program was established in 1972 to further international

A tribal elder of Fouli in Togo—a West African nation on the Gulf of Guinea.

MANAD

understanding at all levels of the involved communities on a continuing long-term basis. Among 613 U.S. cities which have established affiliations with more than 818 cities in 76 countries, Dayton was one of three U.S. cities represented by U.S. Navy men in sister city ceremonies during the goodwill cruise.

Shaking hands with Monrovia Mayor Edward David at the conclusion of the ceremony, SA Brantley reaffirmed the friendship established between Dayton and Monrovia five years ago.

Another highlight of the Monrovia port call was a visit by Liberian President William R. Tolbert Jr. and members of his cabinet who toured *Inchon* and *Spruance*. President Tolbert spoke of the unique friendship and common goals that exist between Liberia and the United States.

In Tema, Ghana, sister city to San Diego, Calif., Sonar Technician Third Class Edward R. Blakeslee Jr. represented San Diego. Commander J. P. Cormack, commanding officer of the Norfolk, Va.-based destroyer *Spruance*, presented a letter from the Mayor of San Diego to the Mayor of Tema.

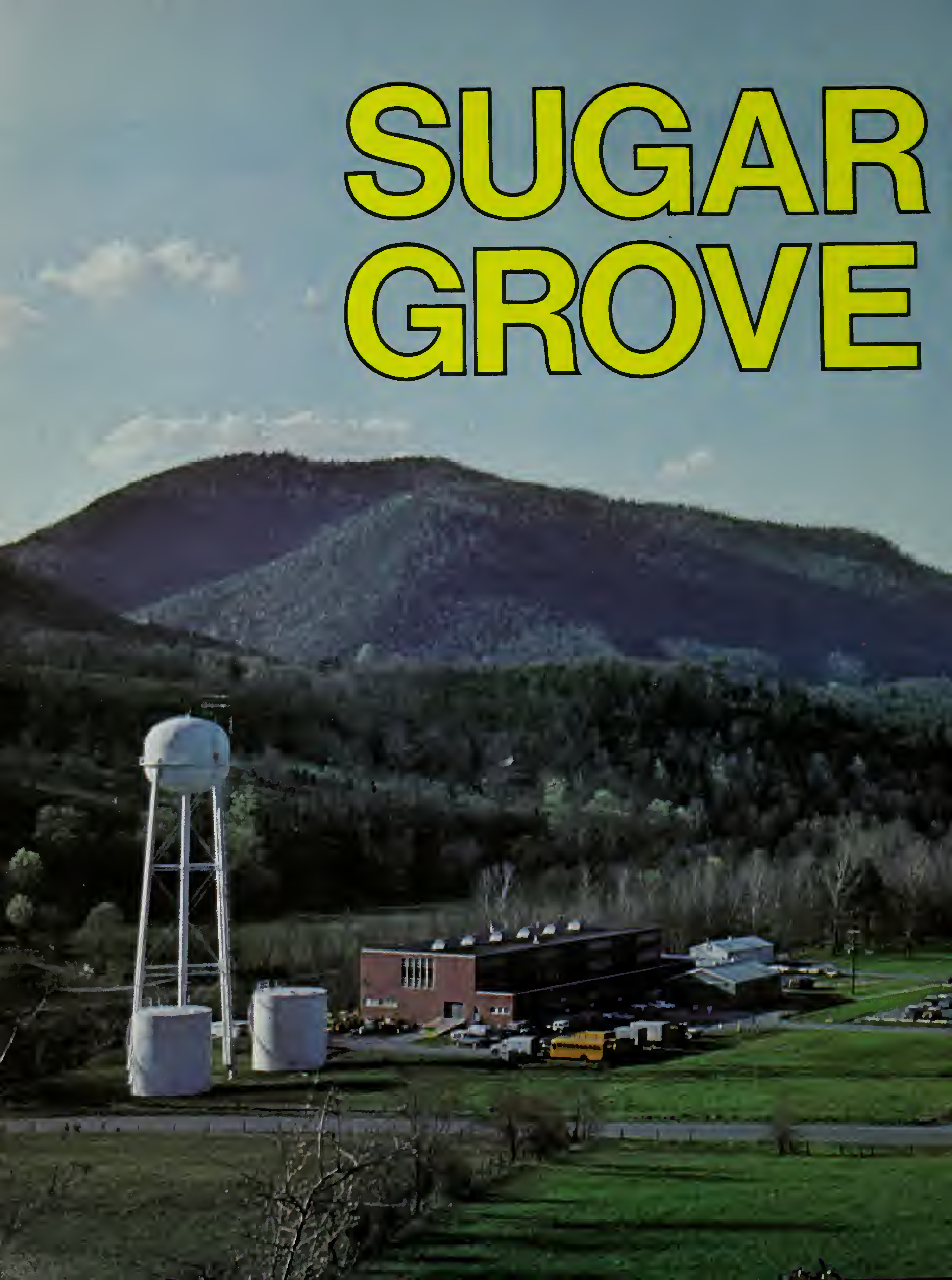
Another sister city visit was made at Lome, Togo. *Valdez's* Gunner's Mate (Guns) First Class Harvey J. White represented his home town of Bay City, Michigan, sister city to Lome.

The three ships, carrying more than 1,500 Navy and Marine Corps personnel, also visited Casablanca, Morocco; Dakar, Senegal; Salvador and Rio de Janiero, Brazil. The *Inchon* and *Valdez* also visited Abidjan, Ivory Coast, while the *Spruance* went on to Bridgetown Barbados in the West Indies.

The 10-week, 15,000-mile cruise was a demonstration of U.S. good will and friendship which also provided a glimpse of U.S. naval power. It marked the first time in 10 years that an American task group of this size had visited Western Africa.—*Photos by PH2 Dave Longstreath.*

Opposite page: Scenes of West Africa, including a Togolese tribal dancer (top right) and a young Bissauan woman with child. Above: USS Valdez *at anchor off Bissau,* Valdez *crewmen touring Bissau (middle), and the flag of Guinea flying beside Old Glory.*

SUGAR GROVE



keep it to yourself

STORY BY JO2 MIKE GROGAN
AND JO1 JERRY ATCHISON

You sometimes hate to tell people about a place like Sugar Grove, W. Va. The mountains are filled with deer, wild turkey and bear; streams are ice cold and brimming with trout; and the valley's large, white farmhouses vie with small, white churches for the visitor's eye. Twisting and turning past it all is a road you can drive on for an hour without meeting another car.

Ask the people who live here and they'll tell you you've reached Sugar Grove, Pendleton County, West "By God" Virginia—home of the annual Festival of Treasure Mountain and West Virginia's own "Mountaineer Navy."

It's that "Mountaineer Navy" that raises the most eyebrows. But ask one of the farmers chatting with the owner and namesake of Bowers' General Store and he'll tell you "It's *real* Navy all right. Men and women of the United States Navy workin' and livin' right in our valley."

And sure enough—miles from any ocean and light years removed from any big city—there it is. Smack dab on the south fork of the south branch of the Potomac River sits Naval Radio Station, Sugar Grove, W. Va.

Although it seems a curious location for a naval station, the 150 men and women of West Virginia's only military base are in precisely the right place. Here's what the "Mountaineer Navy" does and why they moved from the sea into the mountains to do it.

Messages from Navy ships and stations around the world are beamed to Sugar Grove via communication satellites and high-frequency transmissions. Various sensitive antennas placed on these Appalachian mountain tops capture and separate this message traffic for Navy commands throughout the United States.

This is all done in Sugar Grove because the area is one of the few places in the contiguous United States almost totally free of man-made radio or broadcast signals. Nor are there cities or industry to hamper reception

Solid construction with solid materials, like the weathered oak shown here, explains why the valley's barns and buildings measure their age in generations. Right: A worker in the early morning is dwarfed by one of Sugar Grove's two dish antennas on the mountain top. Bottom: Although its appearance and setting have remained the same over the years, this mill no longer grinds the valley's grain.

with random, signal-clouding interference.

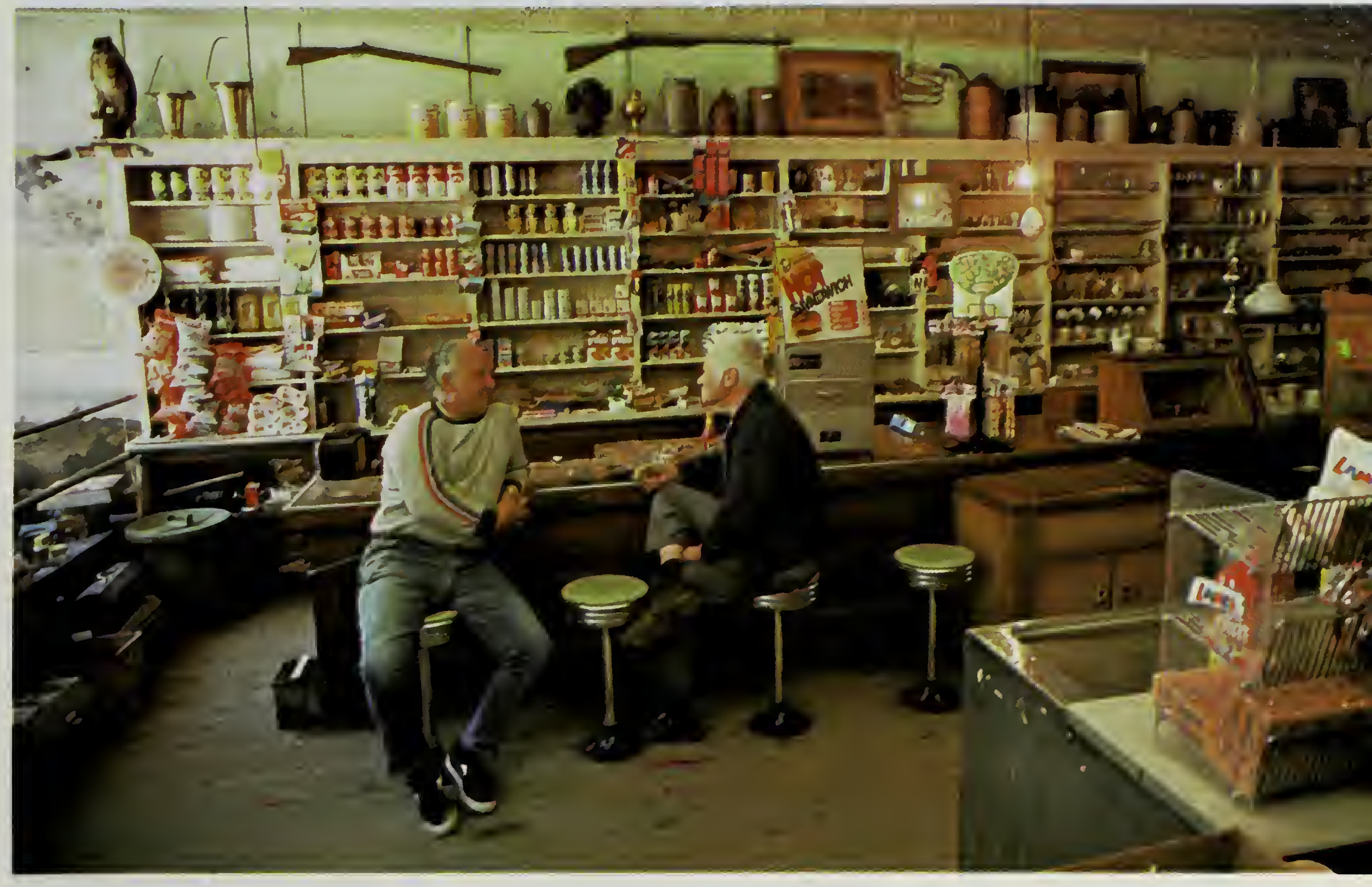
Indeed, the area is so lacking in industry and people that, about a year and a half ago, it became one of the last places in the U.S. to convert completely to dial telephones.

That, in a very quiet nutshell, is why the Navy built two enormous circles of telephone poles tied together with miles of wire here in Sugar Grove.

But the mammoth antennas and small support buildings are only the tip of the communications iceberg here.

SUGAR GROVE...

Below: John Bowers, left, Sugar Grove's unofficial mayor, talks with a local resident visiting Bowers' General Store and Post Office. Below: CTO3 Terry Downing lives in a farmhouse with nearby outhouse and pump—and he likes it that way.



Buried deep within the mountain is a 60,000-square-foot complex jammed with the electronic nerve center of the base.

The sailors of Sugar Grove are performing tasks critical to the success of the U.S. Navy around the world. But the world of their work—the cavernous electronic complex buried in the mountain—is a fascinating contrast to the world in which they live—Pendleton County, West "By God" Virginia.

Their "other" world is a place where people still get together for barn raisings and hog butcherings; where many still cheaply—and efficiently—heat their homes with wood. It's a land where barter often replaces cash for the exchange of goods and services. In short, it's a refreshing taste of an appealing, rough-and-ready life that echoes the frontier spirit those first settlers brought to the valley hundreds of years ago.

So, be they city-bred or country-born, the Navy people here are having an experience they would be hard pressed to duplicate elsewhere.

Take the case of Petty Officer 1st Class Dave Guthrie, a Cryptologic Technician, Interpretive. He, his wife and child live in a rambling, four-bedroom farmhouse on 116 acres of pasture and mountain. During the winter, Dave cuts and hauls wood to fuel the snug house's stoves.

Before he leaves for work on those dark winter mornings, he performs the

Right: Sheep graze in a meadow adjacent to the base. Below: Antennas, built of telephone poles and miles of wire, overlook the valley.

chores found on many farms. Living on a farm means more work for him, but it's work he doesn't mind because, "Boy, it sure is a beautiful way to start the day," he said.

Clad in the overalls and work boots that are the local residents' uniform, Dave ticked off some of the other things he's learned during his off-duty time in Sugar Grove: "I've got my own apple press and we've squeezed some cider. I do a little hunting and fishing, and right now, I'm learning how to build a log cabin."

According to Lieutenant Commander Leslie Collins, skipper of the base, the "Sugar Grove experience" does something to every sailor and his family.

"For example, we had a group of sailors here who did only what any local resident would do," he said. "When they heard a fire had destroyed a family's home and all its contents, they went to local merchants for building material donations and, with the whole valley pitching in, built that family a new home."

The sign on the fence post is tongue-in-cheek, or is it? In any event, George Warden of the West Virginia State Police fires his handmade (not police issue) flintlock rifle at the target range on base.

"This is the land where helping your neighbor is the rule."

"Never volunteer for anything" is a military myth that's lost on Sugar Grove's sailors. LCDR Collins gave another example of how the opposite is true.

"One day we got a call from local officials who said an out-of-town hunter was overdue. They asked if anyone from the base wanted to join the search party they were forming. The base turned out a hefty portion of the volunteer searchers and ended up being the ones who found the man—safe, but just a bit worried."

LCDR Collins' "hefty portion of the volunteers" was actually about 40 percent of all off-duty personnel! He was quick to point out, however, that this amazing turnout was not because the sailors at Sugar Grove are any different than their shipmates.

"This is a land where helping your neighbor is the rule—not the big city exception," he said. "Since the barter system is still very much alive here, if your neighbor helps you out, you are just as beholden to him as if you'd signed a contract."

For the uninitiated, that first exposure to the valley's way of thinking can be a bit unnerving. One sailor described how he'd gone to his first barn-raising just for the novelty of it. A day in the sun swapping jokes and hard work with his neighbors, and eating dish after dish of homemade food set out by families and friends were payment enough for the blisters on his hands.

"When I got back to my truck, there were four dozen eggs and a couple of freshly killed and plucked chickens on the tailgate," he said. "I would have made a fool of myself trying to find out 'who had made a mistake' if a buddy hadn't told me that that's the way things are done around here."

If Sugar Grove (population 62) is the heart of the valley, Bowers' General Store is its nerve center. John Bowers—owner and Sugar Grove's unofficial mayor—leaned on the worn wooden counter and talked with a group of sailors from the base. They had come to the general store to pick up the base mail, chat with Bowers and look over the jumble of foodstuffs, antiques and locally made crafts. The efforts of the valley's skilled craftsmen—furniture, hunting knives, jewelry and leatherwork—are strewn about the old-fashioned store.

Since the mail hadn't arrived from nearby Brandywine, Bowers introduced his wife, Clinton Ann, who works as Sugar Grove's postmistress out of the general store's back room. "We call her 26815 (Sugar Grove's ZIP code)," Bowers said. "But close friends call her 26 for short."

LCDR Collins, also present in the store, had dropped by to gas up his four-wheel drive truck; a back-roads necessity during the winter.

The town's unofficial leader and the base's official head talked of goings-on in the valley. Bowers' wealth of valley folklore is reason for his store's popularity. It also reminded one how entertaining simple conversation can be.

LCDR Collins left the store with a box of groceries under his arm. They weren't his groceries. It's just that since he was headed in the right direction, and since the family who ordered them would have to walk snow-covered roads into town to pick them up, it was the neighborly thing to deliver them.

"Just set them in the snowdrift next to the mailbox on the corner of the road," Bowers said as LCDR Collins went out the door.

Today's modern person might have a little trouble handling Sugar Grove's lifestyle. Navy communications may beam in from around the world but television is only a ghostly shadow on a single channel—if you're lucky and live between mountain peaks. Commercial radio is out of range for all but the most powerful home receiver. The single movie house—when it's open—is miles down the road.

Some might grow uncomfortable living in an area where everyone knows everyone else's business. Some might, but not LCDR Collins.

"It's more than just a feeling of, 'Hey, we're all stuck here so we might as well make the most of it.' Rather, it's the kind of feeling you get around a very large, closely knit family. And that's kind of nice."

Others would be concerned to learn the base has no commissary, few medical facilities and an exchange about the size of a ship's store on a destroyer.

Others might, but not the sailors of Sugar Grove: "What with my wife's vegetable garden, the fresh eggs, poultry, pork and beef I either raise or get from my neighbors, I'm eating better than I ever have," one sailor said.

"And that once-a-week, day-long trip to Harrisonburg (Va.) over the mountains is just about the best time I've ever had with my family," said another sailor of his family's shopping trips to the nearest "big" city.

No, Sugar Grove doesn't have the kind of life everyone would enjoy. But many would.

That's why—sometimes—you kind of hate to tell people it exists.

Keeping it to yourself, though, just wouldn't be the neighborly thing to do.

—Photos by CTT1 James A. Brown, PH2 Jim Preston and JO1 Atchison.

Rights & Benefits

Assistance for Navy Families

Demands of military service affect not only military members, but also their dependents. Recognizing this, the Navy has long been concerned with the welfare of its families. As a means of easing financial and psychological burdens on service members, the Navy has established various service organizations, programs and publications to serve Navy families. Here's a rundown of the type of aid offered:

- Navy Family Ombudsman Program—Established in 1970, this program provides fast communication between Navy families and Navy officials. Commanding officers select ombudsmen from among Navy spouses in their commands. The Navy Family Ombudsman officially represents Navy families and serves as liaison between them and command officials.

Spouses should understand that the ombudsman is not a counselor or a social welfare worker and cannot offer specific advice. The ombudsman does, however, take a direct route toward finding solutions by bringing problems to the attention of the proper officials. Counseling services are provided by other organizations.

The procedures for designating Navy family members to serve as ombudsmen are outlined in OPNAV Instruction 1750.1A of Mar. 6, 1978.

- Dependents' Scholarship Program—More than 20 Navy-oriented organizations sponsor scholarships for study beyond the high school level. Children of Navy, Marine Corps and Coast Guard members and former service members are eligible to compete for these awards.

The Office of the Chief of Naval Personnel (Pers 7311) administers the program and processes applications. Selection committees of the sponsoring organizations select and notify recipients. The scholarships, which are funded by the sponsoring groups, are usually awarded on the basis of scholastic achievement, character and financial need.

The Scholarship Pamphlet (NavPers 15003 series) and applications can be obtained by writing the Chief of Naval Personnel (see box). Information concerning the upcoming year's program is usually available in December.

- Navy Wifeline Association—This volunteer organization of Navy wives is a cohesive force for Navy families. It serves as an information clearing house for all Navy families, using the experience of older members to ease the way for those wives new to service life.

A non-profit organization which depends on volunteer contributions, the association serves as a communications channel for all Navy wives. Any Navy wife can write or call for answers to questions; the association's office is in the Washington Navy Yard.

The Navy Wifeline Association publishes pamphlets dealing with social customs, tours, organizing enlisted wives clubs, and other information of special interest to the service wife. Most publications are free.

- Wifeline—A Navy Internal Relations Activity publication, *Wifeline* is a quarterly magazine distributed to wives' information schools, ships, stations, exchanges, housing offices, base housing units and hospitals. It carries articles about the Navy's policies and programs as they affect dependents, and provides special interest information dealing with the challenges inherent in Navy family life.

One of *Wifeline's* major sources of information is Navy wives who, through their own articles, share their knowledge and experiences with each other. In addition to its regular helpful features, *Wifeline* welcomes contributions from Navy dependents.

- Housing Referral Office (HRO)—All orders directing Navy people to new duty stations urge them "to report to the appropriate Housing Referral Office prior to negotiating any agreement for off-base housing." Although not all personnel do this, it might save them grief if they did.

Applications for on-base housing should be sent before the family leaves their current duty station. If housing is available, the Housing Referral Office will assign new quarters. If no on-base housing is available, the new family is advised of waiting times for on-base housing and the conditions regarding off-base housing.

The local HRO maintains timely lists of available houses and apartments for rent or for sale in the area. Housing counselors try to match the housing and neighborhood to a Navy family's specific needs, basing the match on number in the family and financial circumstances. Counselors also can advise the new family about the legality of leases they are contemplating signing.

When the family is established in their new home, the housing counselor stands ready to respond to possible complaints. Houses and apartments on the housing referral list must maintain certain safety and maintenance standards. If the conditions are below standard and the owner refuses to correct the situation, the house or apartment will be removed from the referral list.

- Navy Relief Society—"The Navy and Marine Corps take care of their own" is the theme at the core of the Navy Relief Society's operating policy. This organization stands ready with several types of assistance for Navy and Marine Corps personnel.

Navy Relief provides money grants or interest-free loans for emergency financial assistance and sponsors other activities such as thrift shops, financial counseling services, a visiting nurse service, layettes, and educational loans to dependent children.

During 1977, the Society assisted in 71,245 cases involving military personnel. About half that number were helped financially and the rest were assisted by other society services.

In areas where there is no Navy Relief activity, the American Red Cross can be contacted for help. The Red Cross is authorized to advance financial aid to a service member in the name of the Navy Relief Society. In turn, the Red Cross will be reimbursed by Navy Relief. A similar arrangement is true for crew members of ships at sea. Money can be advanced by the command in an emergency and will, in turn, be reimbursed by the Society. The service member will be contacted later regarding repayment.

- American Red Cross—The Red Cross, in addition to its reciprocal financial agreement with NRS, also offers personal and financial referral services. Red Cross counselors can help veterans obtain government benefits to which they are entitled. In the interest of better living, the Red Cross offers courses in health and safety, and provides volunteer activities for people with extra time they wish to donate toward a worthy effort.

The Red Cross' worldwide communications network helps families contact service members overseas and at sea when emergencies warrant immediate notification.

- Chaplains—When members of the naval service or their families experience any kind of difficulty, often the advice they value most is that of their chaplain.

Pastoral care to service members and their families is one of the major duties of Navy chaplains. Because they come in contact with so many people, chaplains are usually well aware of the kinds of problems people face and can offer positive support to help them deal with their situations. If the chaplain cannot give direct help, the troubled family is referred to an appropriate source for assistance.

In addition to the Navy-sponsored organizations discussed, other sources of information may be available to Navy families. Some of these depend upon the size and location of the local command; they are:

- Familygram—Regular newsletter from commanding officers to families and friends of the crew.
- Telephone Tree—Informal network of command wives to pass on important information such as last-minute changes to ships' operating schedules. The telephone tree is usually headed by the wife of the commanding officer.
- CO's Action Line—A two-way communication line which may appear as a column in the command newspaper. Dependents can address questions and offer opinions directly to the commanding officer.
- Welcome Aboard Information Kit—This kit is usually available from the command's public affairs office, military personnel office, local wives' club, or personal services office. It contains information about the command and the availability of medical facilities, child care, schools, housing and recreation. It usually includes complete information about the surrounding area and the civilian facilities available to the Navy family. ⚓

Where Navy Families Can Get Help

Navy Family Ombudsman Program, Chief of Naval Personnel (Pers 7311), Department of the Navy, Washington, D.C. 20370

Dependents' Scholarship Program, Chief of Naval Personnel (Pers 7311), Department of the Navy, Washington, D.C. 20370

Navy Wifeline Association, Washington Navy Yard, Bldg. 210, Washington, D.C. 20374, telephone (202) 433-2333, AUTOVON 288-2333

Wifeline Magazine, Navy Internal Relations Activity, Print Media Div., Crystal Plaza 6, Rm. 1044, Washington, D.C. 20360, telephone (202) 692-2564, AUTOVON 222-2564

Housing Referral Office (parent office), Naval Facilities Engineering Command (Code 0811C), 200 Stovall St., Alexandria, Va. 22332

Navy Relief Society Headquarters (main office), 801 N. Randolph St., Rm. 1228, Arlington, Va. 22203, telephone (202) 692-4904

Chief of Chaplains, Bureau of Naval Personnel (Pers 9), Department of the Navy, Washington, D.C. 20370

First Lady of the Navy

BY CATHERINE FELLOWS

Joy Bright had always wanted to lead an annual parade in Wildwood, N.J., because, as she told her father, "It would be different to have a girl leading it."

The day arrived when she was 10 years old. Dressed in her best, she was boosted onto her horse and took her place behind the chief marshal. The moment the band struck, her horse bolted. For the next 15 minutes, the horse ran across vacant lots, up and down streets and around corners, while a terrified but determined 10-year-old hung onto the reins with one thought in mind, stay on.

She did.

The family never let her live the experience down. Everytime she wanted to begin a project or try something new and uncharted, someone in the family would say, "Joy wants to lead another parade."

Captain Joy Bright Hancock's naval career spanned both world wars and culminated in her assignment as the third Director of the WAVES (Women Accepted for Volunteer Emergency Service). That assignment brought her into battle in the halls of Congress.

Now 80, she recalled the fight for passage of the Women's Armed Services Integration Act of 1948, the legislation allowing women to become part of the Regular Navy. "It was the biggest fight of my life," she said, "one that left scars. Yet, I don't know of any woman who ever had such a fine experience."

Before World War II there were no women serving in the Regular Navy. Some, as the captain, had served in the first World War as Yeoman (F) or Yeomanettes in the Naval Reserve for the duration of the war. Service for these women ended in 1919.

Today, the captain keeps up to date on the Navy through friends, travels, and letters from young Navy aspirants.

During World War II, women were again called upon—this time as WAVES—and were given reserve status.

With demobilization, many people assumed that the WAVES would again phase out. As CAPT Hancock said, "Many regarded women in the military during the war as an experiment and a war necessity, not as something that should continue."

It was at this uncertain time that CAPT Hancock, in July 1946, was named Director of WAVES. No role could have suited her better. She had long believed that women should be an integral part of the Navy.

She pointed to the end of World War I, in which 10,000 women had been demobilized, with no opportunity to serve in peacetime. In 1942, she noted, the very idea of women in service had to be sold all over again.

CAPT (then LT) Hancock christens the USS Lewis Hancock *(DD 675) in August 1943.*

Yet it was during those crucial years of World War II that women demonstrated their capabilities in officer and enlisted billets once held exclusively by men. The captain recalled her pride when she once visited the Naval Air Station, Banana River (now Cape Canaveral), Fla. Because of wartime personnel shortages, the commanding officer used women as navigation instructors and control tower operators. "I stood behind these young women seated in the darkened room, watching approaching aircraft appearing as tiny blips on their radar screens, carefully instructing the pilots to correct up or down, left or right, and coaching them into a safe landing. I was so proud of them! It was another example of women successfully meeting the challenge of a job that needed to be done."

CAPT Hancock was Women's Reserve representative for the Bureau of Aeronautics in WW II. Later, she was Special Assistant for Women's Reserve to the Deputy Chief of Naval Operations (Air).

She had her struggles at this time. Hoping to open up the machinist's rating to women, she went to Admiral Arthur W. Radford, then head of the Bureau of Aeronautics. "I told him women were going to the same school with men and I thought they could do machinist's work, too. He said he'd back me."

The admiral told her to make a pitch at an upcoming meeting with pilots and officers. "I did and one of the pilots said he didn't want to fly a plane that a woman had fixed.

"ADM Radford asked the pilot, 'Who do you think built your plane? Women.' And that ended that."

By the end of the war, there were 3,000 women machinists.

Following the war, as Assistant Chief of Naval Personnel for Women and, also, Director of WAVES, CAPT Hancock was in a position to devote great time and effort to legislative activity. She visualized women serving not only in the Regular Navy as careerists, but also in the Naval Reserve, active and inactive. Her foresight was demonstrated during the Korean War when women in the Naval Reserve were called to active duty. They brought with them former Navy skills along with new civilian experience.

After two years of hard work by CAPT Hancock, President Harry S Truman signed Public Law 625, the Women's Armed Services Integration Act, on July 30, 1948. Hundreds of new careers were now open to women in the Navy and other military services.

It was a bittersweet victory; because of age CAPT Hancock would not benefit from the law. Did she mind? "Absolutely not," she replied. "At the time, I knew my career couldn't benefit from the legislation. But I wanted it for others coming along."

Although she may have been a catalyst behind passage of the legislation, she felt most of the credit should go to Navy women themselves.

"Navy women successfully proved their competence and their intelligence. There definitely should be equality of service as long as it is not disruptive to the service. If a person—man or woman—is competent, no blocks should be raised. Certainly, if women have less physical strength for a certain job, they shouldn't be used for it. But the same strength rules also apply to men. You wouldn't use a man with a weak back to do heavy construction and you wouldn't use a weak woman," she said. "That's just common sense."

The captain admits to pride in having been a part of such an outstanding group of Navy women. By their successful performance of varied duties, she said, these women—then and now—contributed mightily to the sociological picture of women in the 20th century.

"In fact," she stated, "they created a new evaluation of the worth of womanpower."

CAPT Hancock knows the Navy from all viewpoints. A native of Wildwood, N.J., she enlisted in 1918, serving as a First Class Yeoman (F), and, later, as Chief Yeoman (F).

When the war started, CAPT Hancock recalled, "my only thought was, suppose I *can't* get in? You see, I was the third of six children. There were two girls ahead of me—one in college, one married. The boys were too young for war service, and my father was too

CAPT Hancock at the Norfolk Naval Base in 1953.

Retiring as Director of WAVES, CAPT Hancock was presented the Legion of Merit by Secretary of the Navy Robert B. Anderson.

old for active service. So, I was the logical one."

Succeeding in joining the Navy, one of her early assignments was sweeping out a hangar at the Naval Air Station in Cape May, N.J. "A hangar is no small place, believe me. But if you could do it, you did it," she said. "I loved the sense of accomplishing something, and it was during this time that I developed a particular love for the naval service which never left me."

When she was mustered out, in 1919, she became a civilian employee at Cape May, N.J., at that time home of the non-rigid airships. Later, in Washington, D.C., she was civilian head of the Editorial and Research Section of the Navy's Bureau of Aeronautics.

She took flying lessons and earned a student pilot's license to understand better the types of problems pilots experienced—engine difficulties and so forth. "I think I knew every naval aviator we ever had. My whole life, in fact, was the Navy and naval aviation."

She loved it, believed in it, and promoted it through her press and public relations duties until she went on active duty at the outbreak of World War II.

Retired in 1953, the slender, enthusiastic captain has been married (and widowed) three times. Lieutenant Charles Gray Little, her first husband, was killed when his lighter-than-air ZR-3 dirigible crashed on a flight over the Humber River in England in 1921. Her second husband, Lieutenant Commander Lewis Hancock Jr., was killed in the crash of the dirigible USS *Shenandoah* in Ohio in 1925. The *Lewis Hancock* (DD 675), launched Aug. 1, 1943, was named in his honor.

Then-Lieutenant Hancock had the distinction not only of christening the ship, but of being—as far as is known—the first naval officer to christen a naval vessel.

She was married—after retirement—to Vice Admiral Ralph A. Ofstie (also a naval aviator), Deputy Chief of Naval Operations (Air) and later Commander, Sixth Fleet. He died in 1956.

Today, CAPT Hancock, who lives in McLean, Va., travels, writes, gardens and paints—hobbies she has maintained throughout her career.

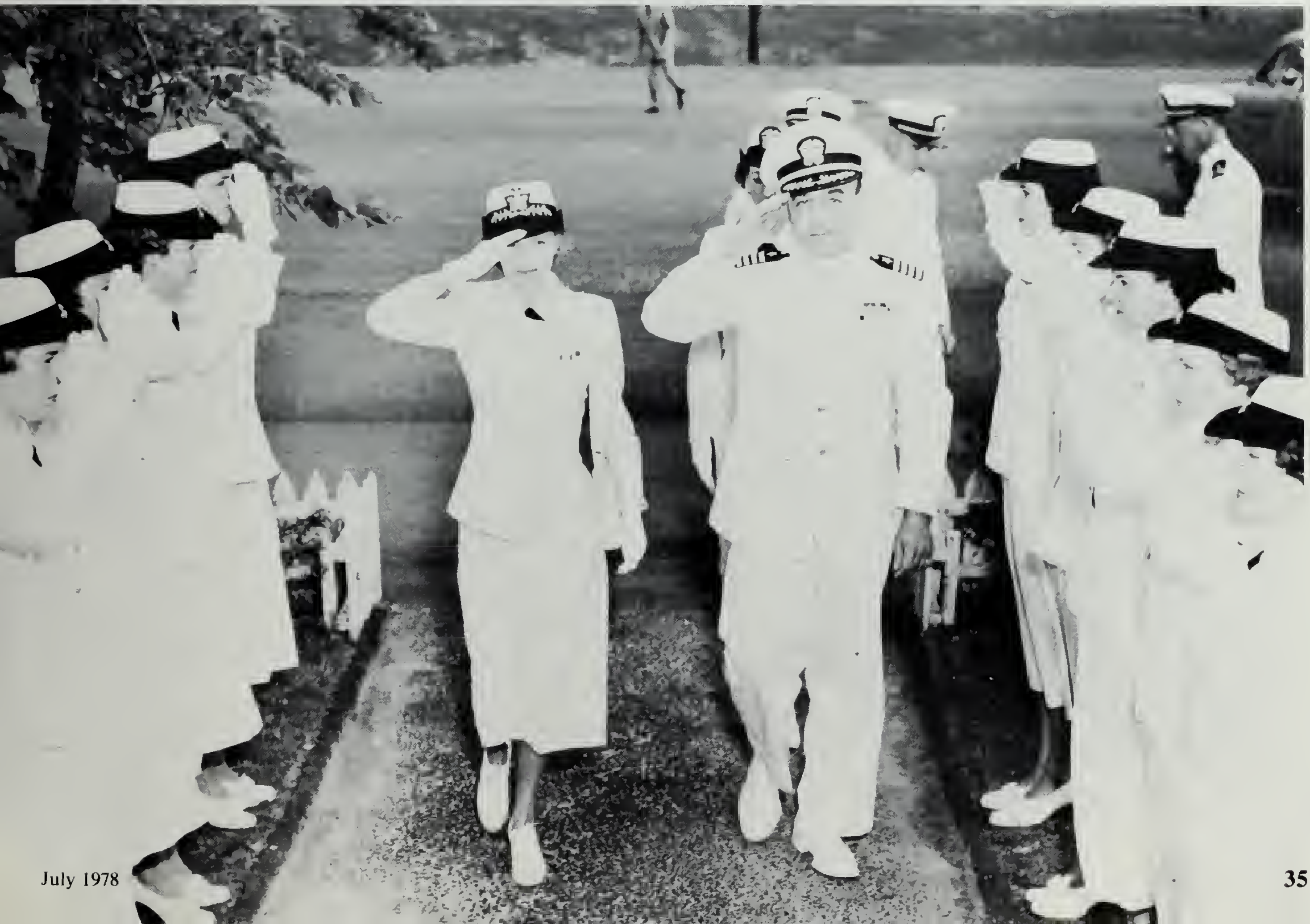
Her first book, *Airplanes in Action*, appeared in 1938. In 1972, she published an autobiography, *Lady in the Navy*.

She also continues to receive honors and recognition from both naval and civilian communities.

A street in her hometown bears her name. This year she was nominated for the Military Order of the World Wars; she is a member of the Association of Naval Aviation; and, in September, a new $3.5 million school in San Diego's Murphy Canyon naval housing area, which is named the Joy Bright Hancock Elementary School, will be formally dedicated.

As a child, her parents taught her that if she wanted to accomplish something, she had to go out and do it herself—even if it meant leading a parade. Captain Hancock has done just that. She has accomplished something for the United States Navy, for naval aviation, and for Navy women. ⚓

Reviewing Navy women at the Naval Training Center, Bainbridge, Md., just before her retirement in 1953.



On Guam: Four-Foot Holes Replace Shells

Photos by JOCS John D. Burlage

BY JOCS JOHN D. BURLAGE

Hacking their way through the jungle on Guam, a civilian survey crew uncovered a World War II-vintage, undetonated eight-inch shell. Presumably, it had been fired some 30 years earlier by an American heavy cruiser during the battle for the island.

Why it hadn't exploded on impact is anybody's guess. Maybe it landed in soft mud; perhaps it was a dud. Whatever, no surveyor was willing to bet his life that the shell wouldn't explode if moved. Instead, they called in the Explosive Ordnance Disposal (EOD) crew from Guam's Naval Magazine.

Lieutenant Ralph E. Darling, Officer in Charge of the six-man detachment assigned to the island by the Hawaii-based Explosive Ordnance Disposal Group One, said, "My personal estimate is that perhaps half the unexploded ordnance on Guam has been found since the war ended. But, as soon as somebody breaks open a new piece of ground, there come some more.

"Nine times out of ten," he said, "an item is safe enough for us to pick up and transport back to NavMag where we can explode it on the demolition range."

The eight-inch shell in question, however, was so far inland that it would have taken a lot of man-handling to get it out. "I felt it couldn't be gotten out safely," LT Darling said. "There was an unacceptable element of risk involved because it would have taken three or four men to ease it out."

Opposite Page–Top: Digging a hole big enough to contain an undetonated shell. Bottom: Shells such as this 8-inch/55 are found about twice a year on Guam. At left: EOD team lowers shell into hole before detonation.

Opposite Page—Top: Checking the circuit. Bottom: If the temperature is right, the components of C-4 can be molded like clay. Top Right: Connecting the blasting device. Left: CWO Tim LeClear at disposal site. Above: Another shell disappears from Guam.

Given the remoteness of the location, Darling decided to detonate the shell where it lay, the first on-site detonation of World War II ordnance on the island in more than four years. EOD team members went to work and a short time later an explosion and its residual rumble of echoes were heard as 10 pounds of composite four explosive (C-4) put the spark of life to the old shell. It left a four-foot-deep hole.

Such detonations are rare. "Normally, we find stuff in somebody's garden 50 yards from the house," Darling said. "And, based on past experience and our reference material, we know that we can pick it up, pack it, and ship it back to the magazine."

Even run-of-the-mill ordnance requires a special kind of "mental set" and know-how. Darling says the EOD requires a high degree of individual initiative and responsibility.

"It's quite possible for great responsibility to start at the E-5 level," he said. "Everybody in EOD must learn to watch out for himself first and his shipmates second. It's got to be a team effort. Everybody on the team has to know what the other person's doing and how everything is supposed to be done.

"Our enlisted men routinely make pickups, and one man usually is dispatched initially. He has to be able to identify ordnance positively and know if the fuse is safe. Then, he has to go ahead and make the appropriate determination—should he pick it up and bring it to the magazine or should he follow a render-safe procedure?"

Enlisted volunteers, since EOD is not a rating, must continue to compete for advancement in their original ratings. Many enlisted EOD specialists, though, are drawn from ordnance-related fields such as mineman, ordnanceman, fire control technician, gunner's mate and torpedoman. Even so, it is difficult for enlisted EOD people to compete successfully in advancement exams since they do not work directly in their ratings.

"EOD means too much to me to let this problem make me even consider leaving," said one first class petty officer. "I feel comfortable in what I do."

Seldom, if ever, do the EOD crews discuss the hazards of their profession. "I suppose if you let the danger factor worry you—if you even consider it—it's going to worry you to the point where you can't think clearly enough to come up with the solution to a sticky problem," one EOD expert said.

Perhaps one reason EOD people don't discuss the hazards is because each is well trained in every aspect of the job. The basic training course lasts about 38 weeks. In it they learn the fundamentals of ordnance, chemical agents, diving, parachuting (for about half the trainees), and EOD's special pubs.

Advanced training continues between assignments to EOD units which can include duty on ships at sea (especially aircraft carriers and ammunition ships) and at naval air stations and facilities on shore. Overseas duty stations include, in addition to Guam, the Philippines and Japan.

Fact is, the training never ends. On

Guam, Darling and his crew view each assignment as yet another chance to learn. There's something else too, said Darling: "Every time I go out, I get an adrenalin rush in anticipation of seeing what the problem's going to be this time."

The civilian survey team that stumbled over a long dormant piece of ordnance didn't realize how much it was contributing to the well-being of an outfit that really—so to speak—gets a bang out of its job. ⚓

Top: Its detonator intact, this is what's left of a WW II U.S. grenade found in the waters off Guam. Right: A Japanese 58mm mortar round, still extremely dangerous despite the passage of years. Below: A collection of WW II ordnance—mortar rounds, grenades, three- and five-inch shells, 155mm rounds, and assorted small arms ammo.

Information Exchange

Q. *I was recently assigned to assist an investigative team in picking up the wreckage of a Navy jet fighter that crashed in a mountainous area. Most of the parts were small and burned beyond recognition. How can the investigators determine the cause with so little to work with?*

A. The Naval Safety Center maintains a staff of qualified aircraft accident investigators. In the case of a major mishap, one or more of these officers may be assigned to assist with the investigation. They guide a step-by-step process to determine the cause of the accident for the purpose of preventing future mishaps. You played a vital part in that process.

The small parts you refer to are fragments of engine, airframe, and, possibly, escape system components and subcomponents that have been subjected to tremendous impact forces.

The investigator must make an on-site evaluation of just how much debris will be required for a reconstruction layout. This layout is usually accomplished at the nearest military facility. Each item is identified using illustrated parts breakdown manuals and examined for indications of in-flight fire, fatigue failure, incorrect assembly, overstress, flight control positions, engine power settings, etc.

Meanwhile, the Naval Safety Center's computer has been programmed to review all past incidents and accidents with similar circumstances.

At the squadron level, the pilot and aircraft logbooks are scrutinized for abnormalities. Witnesses are sought out and carefully questioned. Once all this evidence has been evaluated, probable scenarios are worked out and empirically tested. And so the procedure goes until a conclusion is reached. Of course, no two mishaps are exactly the same, so there are many variations to the process. The Navy's aircraft accident rate has declined steadily through the years. Certainly these painstaking efforts have contributed to this desirable decline.

Q. *What is retirement leave?*

A. Members of the naval service about to retire or transfer to the Fleet Reserve have two options regarding leave.

They may use accumulated leave prior to transfer to the Fleet Reserve/retirement. This allows them to complete the separation paperwork, go on leave, and be retired/transferred to the Fleet Reserve on their effective date without having to report to a DOD activity for final processing out. Criteria and procedures for this option are contained in BUPERSMAN Art. 3860220.

The second option allows members to take accrued leave, move to their desired location and then report to the nearest separation activity for final processing out. Members who need to leave the area immediately to begin a new job, close on a house, put children in school, etc., might choose this second option. See BUPERSMAN Art. 3810260 (Place of Separation) for details.

Q. *Does the Navy have any programs to deal with the problems of alcohol abuse?*

A. Yes. Since the Navy is a microcosm of society, it, too, has a problem with alcohol abuse. Its drinking pattern is much like that of the civilian world, where almost half of the alcoholic people are professionals or managers and where one out of 10 in the work force in heavy industry is an alcoholic. To cope with this situation, the Navy Alcoholism Prevention Program (NAPP) was established in 1971.

The NAPP has two objectives: education, and identification and rehabilitation.

The education phase of the program seeks to:

- Promote attitudes of responsibility with respect to alcohol in those persons who choose to drink and the social acceptability of an individual's decision not to drink.
- Promote the acceptance of the recovered alcoholic as a useful, reliable member of the military community.
- Acquaint medical personnel with the most effective methods of treating alcoholism.
- Teach supervisory personnel how to detect alcoholism in its early stages and how to induce the alcoholic person to seek treatment, and provide knowledge of available treatment facilities.

The identification and rehabilitation phase of the program:

- Provides programs and facilities for early identification, remedial education, treatment and rehabilitation for alcoholics and alcohol abusers.
- Aims to achieve general acceptance of alcoholism as an illness that is preventable and treatable.
- Attempts to remove stigmatic effects associated with alcoholism which militate proper referral for treatment and subequent restoration to full duty.

The Navy has five Alcohol Rehabilitation Centers and has set up Alcohol Rehabilitation Units in naval hospitals. These provide medical treatment, group therapy, education, spiritual reinforcement and individual counseling. Also, Alcohol Rehabilitation Drydocks are being sponsored to enable local commands to rehabilitate their less serious cases on site. See "It Works at Lakehurst" in the December 1977 issue of ALL HANDS.

SALUTING

A Time-Honored Courtesy

"Hail ye small, sweet courtesies of life, for smooth do ye make the road of it . . . " wrote the 18th century novelist Laurence Sterne. Though Sterne addressed courtesy in general, his thoughts are equally applicable to naval courtesy—the time-honored standard of behavior observed by Navy people of all ranks.

An integral part of military bearing, naval courtesy is that attribute which readily distinguishes the professional Navy person from the smooth-sleeved recruit. It encompasses rules of etiquette, matters of custom, and compulsory procedures during rendering of honors. It's the Navy person's compass, showing the proper course of action in all situations.

In this issue, All Hands presents a short course in naval courtesy. Adherence to these guidelines will mark you as a person possessing both self-respect and respect for others.

SALUTING

One essential of naval courtesy is the salute. Regulations governing its use are founded on military etiquette and are deeply rooted in traditions and customs of the Navy. A military organization functions efficiently only as a unit, and any common bond or identifying symbol that furthers the feeling of comradeship strengthens unity. The custom of saluting is a time-honored demonstration of courtesy among military personnel the world over and expresses mutual respect and pride in service.

Q: What is the proper way to salute?
A: Except when walking, one should be at attention when saluting. In any case, head and eyes are turned toward the person saluted unless inappropriate to do so, such as when a division officer in ranks salutes an inspecting officer on command.

When a salute is executed, the right hand is raised smartly until the tip of the forefinger touches the lower part of the headgear. Thumb and fingers are extended and joined. The palm is turned slightly inward until the person saluting can just see its surface from the corner of the right eye. The upper arm is parallel to the ground, with the elbow slightly in front of the body. The forearm is inclined at a 45 degree angle; hand and wrist are in a straight line. One completes the salute (after it is returned) by dropping the arm to its normal position in one sharp, clean motion.

The first position of the hand salute is executed when six paces from the person saluted, or at the nearest point of approach, if more than six paces. (Thirty paces are generally regarded as the maximum saluting distance.) The saluting position should be held until the person saluted returns the salute or has passed.

Q: Is it necessary to say anything while saluting?
A: Hand salutes, according to naval custom, are accompanied by a word of greeting. The junior person stands at attention, looks the senior straight in the eye and says one of the following:

- From rising until noon—"Good morning (grade and name)."
- From noon until sunset—"Good afternoon (grade and name)."
- From sunset until turning in—"Good evening (grade and name)."

When possible, address a senior by grade and name, i.e., "Good morning Commander Jones," rather than by the impersonal "Sir" or "Ma'am."

Q: Is it ever permissible to salute with the left hand?
A: Yes. Navy custom permits left-hand saluting when a salute cannot be rendered with the right hand due to physical inability. Army and Air Force custom permits right-hand salutes only.

Q: What are some common errors in saluting?
A: Though the "salt" rarely commits a saluting fault, less experienced Navy people have been observed saluting *improperly* because of one or more of the following errors:

- Bowing the head as the salute is given;
- Dropping the salute before it has been returned;
- Holding the arm awkwardly high

" . . . salute when you meet . . . "

A Time-Honored Courtesy

or letting it sag too low;

- Saluting on the double instead of slowing to a walk;
- Avoiding the gaze of the person saluted;
- Saluting with pipe, cigar or cigarette in the mouth or hand;
- Waiting too long to begin a salute;
- Saluting in a casual or perfunctory manner instead of rendering a smart, sharply executed salute.

Q: Whom should you salute?
A: Enlisted personnel salute all officers and all officers salute their seniors. Salutes are returned by all saluted except when uncovered—the person saluted then acknowledges with an appropriate greeting or a nod of his head.

Salutes are extended to officers of the Navy, Army, Air Force, Marine Corps and Coast Guard; to foreign military and naval officers whose governments are formally recognized by the government of the United States; and, when in uniform, to officers of the Navy, Army, Air Force, Marine Corps, Coast Guard Reserves and the National Guard; to officers of the United States Public Health Service and National Oceanic and Atmospheric Administration.

Q: Should civilians ever be saluted?
A: Civilians entitled by reason of their position to gun salutes or other honors—such as the President of the United States or Secretary of the Navy—rate a hand salute.

Q: When several Navy people are walking as a group, who should salute?
A: When a group of junior personnel approach a senior, the senior in the group initiates a salute by calling out "ATTENTION" and all in the group face and salute immediately and hold their salute until it is returned by the approaching officer.

When several officers in company are saluted, all return the salute. For example, if an ensign is walking with a commander and an Army captain approaches, it would be improper for the ensign to salute the captain until the captain first salutes the commander. As the commander returns the salute, the ensign salutes simultaneously. If two or more persons of various grades accompany the senior officer, the same rule applies: they render the salute when the senior officer returns the salute accorded.

Q: What is the proper saluting procedure when boarding a ship from which the national ensign is flying?
A: All persons in the naval service stop on reaching the upper platform of the accommodation ladder or the shipboard end of the bow, face the ensign and salute. Following this, they salute the officer of the deck.

On leaving the ship, personnel render the salutes in reverse order: first to the OOD and then to the national ensign. This procedure is also followed when boarding or leaving a foreign warship.

Q: Whom should you salute while aboard ship?
A: All officers and enlisted people on board a U.S. Navy ship salute all flag officers, the commanding officer, and visiting officers senior to themselves on every occasion of meeting, passing near or being addressed when covered.

On their first daily meeting, they salute all senior officers who are attached to their ship. Many seagoing commands consider salutes rendered at quarters as the first salute of the day.

All officers and enlisted personnel salute whenever addressed by officers senior to them and salute an inspecting officer during the course of an official inspection. When the progress of a senior officer may be impeded by a salute, officers and men clear a gangway and stand at attention facing the senior officer until he has passed.

Q: What is the procedure for saluting while in boats?
A: The officer or petty officer in charge of a boat not underway salutes officers that come alongside or pass nearby. If there is no petty officer, officer or acting petty officer in charge, all those in the boat rise and render a salute. Boat coxswains salute all officers entering or leaving their boats. (Although it is customary to stand when saluting, this formality is dispensed with if the

"... salute officers ..."

safety of the boat or crew would be imperiled.)

When boat awnings are spread, enlisted personnel sit at attention while saluting; they do not arise under these circumstances. Officers seated in boats rise when rendering salutes to seniors who are entering or leaving.

Q: What about when boats are under way?

" . . . senior officer and coxswain salute—officers do not rise—coxswains do, if safety permits . . . "

A: When boats pass each other with embarked officers or officials in view, hand salutes are rendered by the senior officer and coxswain in each boat. Officers seated in passing boats do not rise when saluting; coxswains rise to salute unless it is dangerous or impracticable to do so.

Q: Is it proper to salute officers who are wearing civilian clothing?

A: A junior in uniform who recognizes a senior in civilian clothing initiates the proper greeting and salutes. In time of war, however, an officer not in uniform may be deliberately avoiding disclosure of his/her naval identity, so one should be discriminate about following the normal peacetime rule.

Q: How should one salute when passing a senior proceeding in the same direction?

A: No junior should overhaul and pass a senior without permission. When for any reason it becomes necessary for the junior to pass, he does so on the left, salutes when abreast of the senior and asks, "By your leave, sir (ma'am)?" The senior replies, "Very well," and returns the salute.

Q: What is the procedure for saluting when reporting?

A: When reporting on deck or out-of-doors ashore, one is covered and salutes. When reporting in an office, one is already uncovered and therefore does not salute.

Q: What should one do about saluting when the grade of the person being considered for a salute is unknown?

A: In most cases, officers will know the relative seniority of those with whom they are in frequent contact. But there are many situations, especially ashore, where that is an obvious impossibility. The safest course of action is to salute when uncertain and do so immediately rather than waiting for the unknown person to disclose his/her rank.

Q: When do sentries salute?

A: Sentries salute all officers boarding or departing a ship via the brow, and when passing or being passed by officers close aboard in boats or otherwise.

Q: When should a Navy man or woman salute a senior riding in a vehicle?

A: Enlisted personnel and officers salute all senior officers riding in motor vehicles. Those in the vehicle both render and return salutes, as may be required. A driver of a vehicle is obliged to salute if the vehicle is stopped—to do so while moving might endanger the safety of the occupants and therefore may be omitted.

" . . . all salute if no officer or petty officer is in charge . . . "

A Time-Honored Courtesy

Q: Are there situations in which it would be improper to salute?

A: Yes. Some of the more common are listed below. *Do not salute*:

- When uncovered, except where failure to salute might cause embarrassment or misunderstanding, i.e., when entering an Army officer's office on a reservation where naval customs may not be known;

" . . . during colors the boat officer or coxswain salutes . . . "

- In formation, except on command;
- On work detail (the person in charge of the detail salutes);
- When engaged in athletics or assembled for recreation or entertainment;
- When carrying articles in both hands, or otherwise so occupied as to make saluting impracticable;
- In public places where obviously inappropriate (theaters, restaurants, etc.);
- In public conveyances;
- When a member of the guard engaged in performance of a duty which prevents saluting;
- In action or under simulated combat conditions; or
- In mess. (When addressed by a senior while eating, stop eating and show respectful attention.)

Q: Should a person on duty salute when entering a room in which seniors are present?

A: Yes. Navy people on duty are normally covered and should salute when entering a room occupied by seniors, i.e., when giving Eight O'clock Reports aboard ship.

Q: What is the proper procedure for saluting during the playing of the national anthem?

A: When the national anthem is played, persons in the naval service stand at attention and face the colors, if displayed; otherwise, they face the music. If covered, they salute at the first note of the anthem and remain at salute until the last note.

When in ranks, the officer in charge orders "Attention" and renders an appropriate hand or sword salute for the formation.

In boats, only the boat officer—or in his absence, the coxswain—stands and salutes when the national anthem is played. Other members of the crew and passengers who are already standing, stand at attention. Everyone else remains seated, at attention. Personnel wearing civilian clothing and standing at attention in a boat during the anthem do *not* render the "hand-over-heart" salute. This is an exception to the general rule.

Q: Is it necessary to salute the ensign when it is being carried in a parade?

A: Military personnel salute the flag when they are passed by or pass it being carried unfurled in a parade or military formation.

Q: What procedures should be observed at funeral or religious services?

A: During funerals, officers and enlisted people remain covered while in the open, *but uncover during the com-*

" . . . salute captain at every meeting on board ship . . . "

mittal service at the grave. During burial services at sea, they remain covered throughout the service.

During religious services aboard ship and during formal religious ceremonies outdoors ashore, members remain uncovered.

" . . . uncovered and in civvies, place hand over heart . . . "

At a military ceremony when the occasion requires, an officer or enlisted person salutes rather than uncovers, as that is the traditional mark of respect. If an officer were attending a military funeral officially, a salute would be appropriate whenever honors are rendered; when the body is removed from the hearse to the chapel, from the chapel to the caisson, and from the caisson to the grave; when volleys are fired; and when taps is sounded.

As a participant at a nonmilitary funeral or burial service, an individual may follow the civilian custom and uncover (rather than salute) when such honors are called for, as during the procession to the grave and the lowering of the body.

Jewish custom calls for remaining covered during all religious ceremonies, so the usual rules regarding uncovering do not apply when a service is being conducted by a representative of that faith.

" . . . face the colors and salute . . . "

Q: What is the procedure for saluting at Honors to the Colors?

A: At both morning and evening colors, "Attention" is sounded and all officers and enlisted personnel topside face the ensign and salute. At shore stations and on board ship during peacetime where a band is present, the national anthem is played during ceremonies, so the salute should be rendered in accordance with procedures followed for the playing of the anthem.

Q: What is the procedure for rendering a salute during colors when in a vehicle or a boat?

A: During colors, a boat underway within sight or hearing of the ceremony either lies to or proceeds at the slowest safe speed. The boat officer—or coxswain in the absence of a boat officer—stands and salutes except when it would be dangerous to do so. Others in the boat remain seated or standing and do not salute.

Vehicles within sight or hearing of colors are stopped. Persons in the vehicle sit at attention. ⚓

Mail Buoy

More on MSC Duty

SIR: Your article, "Going to Sea with the MSC," in the February 1978 issue, deleted three important facts that I would like to add.

First, my previous command, the USNS *Harkness* (T-AGS-32), had more than the stated 16 Navy men filling billets aboard the ship. The Navy crew of approximately 30 men consisted of ETs, DSs, ENs, QMs, BMs, YNs, PNs, DKs, SKs, EAs, CMs and some airdales who maintained our helicopter. In addition we had eight officers and one warrant officer.

Second, the *Harkness* was built for oceanographic survey and is not a converted warship.

And, we had few contacts with the Bluejacket fleet. In fact, we seldom moored at Navy piers even when they were available.

The remainder of the article is very informative for those desiring duty aboard or are unfamiliar with MSC ships.—Marc McCright, ETN3, USN.

Kidney Machine

SIR: I've just finished reading your article "Second-Chance Miracle, Kidney Transplant" (March '78 issue).

I appreciate this article in that my father was also a victim of chronic renal failure. He was administered dialysis twice a week for almost three years. The dialysis took place in our home supervised by my mother and myself.

I agree with the article that this process is extremely costly, time-consuming, and restrictive. The fact still remains that hemo-dialysis is a life-saving device.—David S. Chaney, EW2, USN.

Who's Right?

SIR: With regard to the back cover biography on your March 1978 issue, I believe the subject's name has been misspelled. According to the Dictionary of American Naval Fighting Ships, Volume I (page 130), the Captain's name was Blakeley, not Blakely. Three ships named in his honor over the years—*TB-27, DD-150,* and *DE-140*— all had it that way. Who's right?—CDR Tyrone G. Martin.

• *"Who's right?"—it's anybody's guess. One source claims that part of the reason for two different spellings of Captain Johnston Blakely/Blakeley is attributable to imprecision in the documentation in the early days of our country.*

Another ship named after the same man is USS Blakely *(FF-1072). Also, Torpedo Boat #27 bearing his name carried "Blakely" on the vessel itself.*

Another example of imprecision in spelling is the name Truxton/Truxtun.—ED.

Original Rates

SIR: I have a question concerning the eight original Navy rates mentioned in the March 1978 issue. Could you name the five original rates established in the Navy?—Glenn A. Marshall, QM2, USN.

• *The Naval Service Act of July 1, 1797, provided for the following petty officer ratings and enlisted rates:*

P. O. Ratings

Armorer
Boatswain's Mate
Captain's Clerk
Carpenter's Mate
Cook
Cooper
Coxswain
Gunner's Mate
Master-at-Arms
Master's Mate
Quarter Gunner
Sailmaker's Mate
Steward
Yeoman of the Gun Room

Crew

Seaman
Ordinary Seaman
Midshipman (there was also a Midshipman, Warrant Officer)
Boy (first appears on the Muster Roll of USS Constitution *in 1798).*—ED.

Recognition Due

SIR: Regarding the Currents item in the February 1978 issue—"U.S. Ships Aid Burning Freighter"—let's put the credit where it's due. The USS *Bigelow* (DD 942) remained on the scene while waiting for commercial tugs to arrive. I think that the men of the *Bigelow* would appreciate recognition.—D. E. Haddock, SK2, USN.

• Thank you for calling our attention to the part played by the USS *Bigelow* in the incident. We had no intention of slighting *Bigelow*.— ED.

Reunions

• *American Battleship Assn.*—Former battleship officers and men are invited to spend a week at sea aboard SS *Emerald Seas* departing Miami, Fla., April 23, 1979 for Caribbean cruise. Contact David C. Graham, P.O. Box 11247, San Diego, Calif. 92111.

• *Destroyer Squadron 48*—Reunion planned in Saginaw, Mich., Aug. 9–13 for shipmates of USS *Kidd* Association, Inc., Destroyer Squadron 48. Anyone who served in the following ships is welcome to attend: *Walker* (DD 517), *Hale* (DD 642), *Kidd* (DD 661), *Abbot* (DD 629), *Stembel* (DD 644), *Black* (DD 666), *Erben* (DD 631), *Bullard* (DD 660), and *Chauncey* (DD 667). Contact Harrold F. Monning, 310 East 8th St., Kewanee, Ill., 61443.

• *Seabees*—66th U.S. Navy Construction Battalion and 1022 Detachment of Seabees, World War II. Reunion at Tupelo, Miss., Aug. 30 to Sept. 2. Contact W.M. Howard, 2648 Country Green Rd., Memphis, Tenn. 38134 or John Chandler, P.O. Box 340, McLemoresville, Tenn. 38235.

• *Association of Minemen*—Reunion at Charleston Air Force Base, Charleston, S.C., Aug. 19–20. All active, retired military and civilian personnel who are or have been associated with mine warfare are invited. Contact Association of Minemen, Fleet Liaison Department, Naval Mine Engineering Facility, Yorktown, Va. 23691.

• USS *Amycus* (ARL 2)—Reunion in San Diego, Calif., Sept. 1-2. Contact V. E. Jackson, 3562 Ben St., San Diego, Calif. 92111.

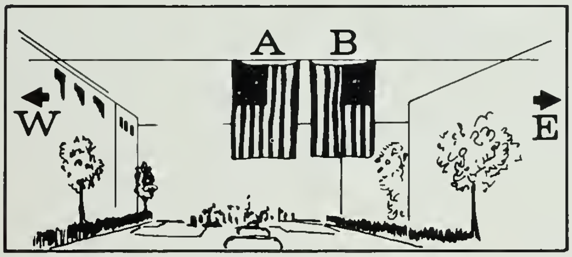
• USS *Astoria* (CA 34)—Reunion at Gearhart, Ore. 36th Anniversary of Savo Island. Aug. 11-13. Contact Ken Cruse, 625 E. Edison St., Hillsboro, Ore. 97123.

• USS *Whale* (SS 239)—Reunion being planned for August at the Submarine Veterans of World War II convention in Norfolk, Va. Contact Ernest W. Talbot, 50 Wyoming Rd., Paramus, N.J. 07652.

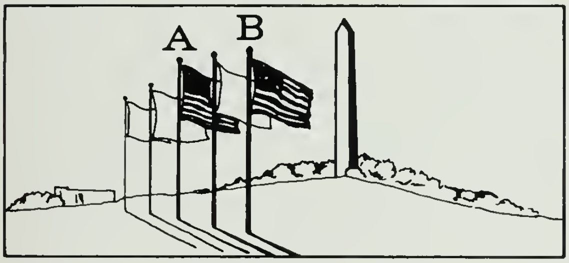
• USS *Callaway* (APA 35)—Reunion at McAllen, Tex., Aug. 1-3. Contact Samuel Schreiber, 210 W. Garland, Garland, Tex. 75040.

Stern Shots

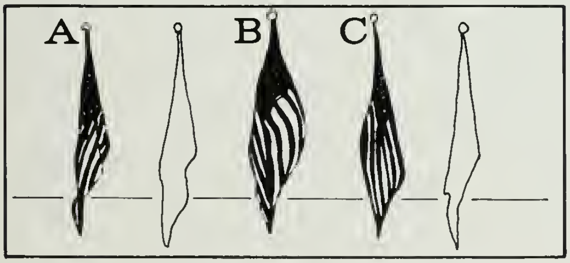
During the summer, especially between Memorial Day and the Fourth of July, Americans have an affinity for flag waving. But there are rules for displaying the American flag. See if you know your flag etiquette.



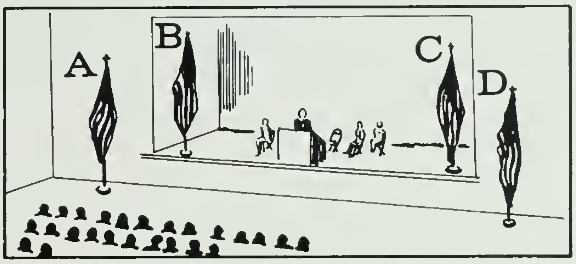
2. When suspended over a north-south street, the union of the flag should be to the (a) west; (b) east.



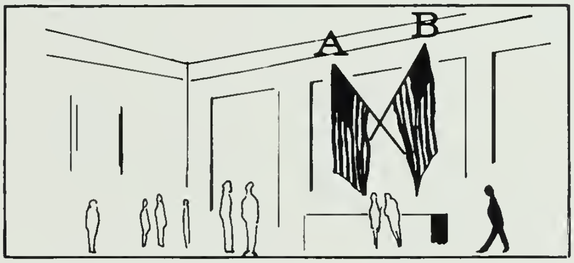
4. When flown with flags of other nations, the American flag should fly at:



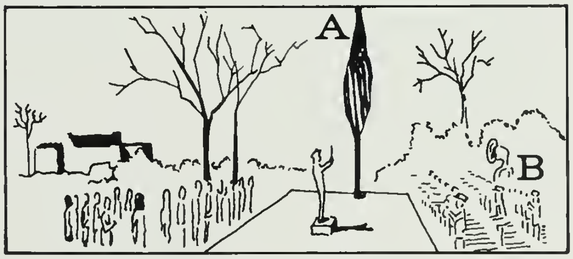
6. When displayed with several state or organizational flags, the U. S. flag should be at:



1. At a lecture in an auditorium, the flag should be displayed at:



3. When displayed with another flag against a wall from crossed staffs, the staff of the American flag should be in front of the other staff. On which side should the American flag hang?



5. When the "Star Spangled Banner" is played, the audience should (a) face the flag and salute, (b) face the music and salute.

Answers. 1 — A and/or B; 2 — B; 3 — A; 4 — B; no international flag should be flown above another during peacetime; 5 — A; if no flag is present, then B; 6 — B; the flag should be at the highest and at the center point.

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Covers

Front: The new Chief of Naval Operations, Admiral Thomas B. Hayward. See interview beginning on page 4.
Back: A shot of a glider belonging to the Test Pilot School, taken from the school's second glider – both in flight over the southern Maryland countryside near NAS Patuxent River, Md. See story starting on page 19. This and the front cover are the work of staff photographer PH1 Terry Mitchell. At left: PH2 Dwain Patton's entry, "Eat My Dust," which took Second Place in the Sports Category of the 1977 Military Photographer of the Year contest. Patton also took Third Place in the contest's Pictorial Category.

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Currents

Flag Level Review On Some Personnel Assignments Possible

Flag Level Review On Some Personnel Assignments Possible ● A new process that permits officers in command to request a flag officer level review of personnel assignments by detailers when normal avenues of appeal have been exhausted has been approved by the Chief of Naval Personnel. The system is designed to bring the needs of both the Navy and the individual into balance after all facts have been taken into consideration. The appeal for a flag officer level review may be made by officers in command or immediate superiors in command if they believe BUPERS has not been apprised of all pertinent facts of an individual's case in making an assignment. To initiate the review, a formatted message is sent to BUPERS with information copies to the chain of command. Information to be provided in the message includes the individual's name, reason for requesting the review and any additional pertinent information. A decision will be made by a flag officer in BUPERS and the reply returned to the command on a priority basis.Officers in command have been advised to be judicious in selecting only those special cases that they believe merit flag level review.

Special Operations Officer Designator Established ● Approval has been given to form a separate category of unrestricted line officers termed "special operations officers" – a further step in the Navy's move to specialize its officer communities. Secretary of the Navy W. Graham Claytor Jr. authorized the new designator (1140) which will cover duties formerly performed by the surface warfare and engineering duty communities. Special operations officers will conduct operational diving and salvage, explosive ordnance disposal (EOD) and expendable ordnance management (EOM). Approximately 335 special operations officers will be assigned to salvage ships and in ordnance-related jobs aboard carriers, amphibious and service force ships as well as EOD teams. Initially, newly selected officers will be designated 1190 for training until they have met the necessary experience and qualifications for 1140. Active duty lieutenant commanders and above may request 1140 designation if they are diving and salvage or EOD qualified or possess significant experience in EOM. Interested active duty lieutenants and below should request 1140 designation if they are already qualified in diving and salvage or EOD. They should request an 1190 designation if they are qualified to enter into training for either diving and salvage or EOD.

Ney Award Winners Announced ● Winners of the annual Captain Edward F. Ney Memorial Awards for unequaled achievement in overall enlisted dining facility operations for 1978 have been announced by Secretary of the Navy W. Graham Claytor Jr. First place winners, Afloat: Large, USS *Hunley* (AS 31); Medium, USS *Ortolan*

(ASR 22); Small, USS *John Marshall* (SSBN 611) (Blue). Ashore: Naval Surface Weapons Center, Dahlgren, Va. Second place winners, Afloat: Large, USS *Proteus* (AS 19); Medium, USS *Manitowoc* (LST 1180); Small, USS *L. Mendel Rivers* (SSN 686). Ashore: Naval Air Station, Chase Field, Beeville, Texas. Third place winners, Afloat: Large, USS *Lexington* (CVT 16); Medium, USS *Elliot* (DD 967); Small, USS *Takelma* (ATF 113). Ashore: U.S. Naval Communication Station, Puerto Rico.

GUARD III Program For Career Petty Officers Announced

● A new Guaranteed Assignment Retention Detailing (GUARD III) program which will extend provisions of the GUARD II program to career petty officers has been announced by the Bureau of Naval Personnel. Under the GUARD III program, enlisted personnel are provided two guaranteed assignments, one of which must be used at the first reenlistment. The second guaranteed assignment may be used any time prior to start of the member's 25th year of service. Personnel who have had two guaranteed assignments under GUARD I or GUARD II in their first 10 years of service will be entitled to one additional GUARD assignment as a careerist. Phase-in of GUARD III begins on Oct. 1, 1978, for all E-4 through E-6 (and eligible E-3s) with two or more years of active service, but less than 13 years' active obligated service at EAOS and all E-7 through E-9 with less than 25 years. Phase II of the program's implementation comes not later than Oct. 1, 1979, when all E-4 through E-6 with more than 13, but less than 25 years' active military service at EAOS are eligible to participate. Personnel requesting GUARD III are required to:

- Not be under PCS orders at time of application.
- Be within six months of EAOS.
- Be eligible for duty requested.
- Have a consistent record of above average performance or a trend toward improved performance.
- Be recommended for reenlistment.

Details are contained in BUPERS Notice 1306 of June 21, 1978.

Great Lakes Cruise Scheduled

● Three Atlantic Fleet destroyers will conduct a six-week Great Lakes cruise beginning in August and make port calls in numerous U.S. and Canadian cities. USS *William C. Lawe* (DD 763), USS *Davis* (DD 937) and USS *Robert A. Owens* (DD 827) will make port calls in Oswego, Ogdensburg and Buffalo, N.Y.; Erie, Pa.; Cleveland, Toledo and Ashtabula, Ohio; and Detroit, Mich. The ships also will visit the Canadian cities of Halifax, Nova Scotia; Montreal, Quebec; and Toronto, Ontario. The cruise will train naval reserve crews during active duty for training periods and provide experience in restricted water navigation and operations. Additionally, the presence of U.S. Navy ships will be used to support recruiting efforts and to bring the Navy to a large segment of Americans in inland areas for the first time in recent years.

Interview with ADM Hayward:

Charting a Course

(Editor's Note: Shortly before relieving Admiral James L. Holloway III as Chief of Naval Operations, Admiral Thomas B. Hayward talked with All Hands about the challenges he faces as CNO, the state of the Navy and the Navy's future role in national defense. He was interviewed by All Hands staff member JO1 Jerry Atchison.)

All Hands: What do you consider will be your most important challenge as Chief of Naval Operations?

Admiral Hayward: I think there are a number of challenges. But let me discuss two in particular. First, we are going to have to meet the personnel needs of the future. We must man our Navy with qualified, technically competent people. The second is also a major challenge. It is to help the Navy have more confidence in itself. By that I mean I want to take necessary steps to help us counteract the overabundance of criticism that's been directed toward the Navy in the past six or nine months and to refocus on the many strengths of the Navy.

All Hands: Are there other challenges and what priorities have you set for yourself?

ADM Hayward: There are many challenges—the Navy is a very complex organization. We have many requirements, all of which demand the CNO's attention in significant ways. However, I don't see anything that's dramatically different from my perspective than it has been with Admiral Holloway. I think Admiral Holloway had his eye properly focused on the issues that bear on a ready, capable Navy, and I hope to maintain the momentum he has generated.

All Hands: Do you intend implementing any new programs to meet the challenges of which you spoke?

ADM Hayward: I want to place additional emphasis in a couple of areas, particularly as it relates to what our needs are for a motivated career force.

One of these is going to be in the area of leadership and management training, which we have already institutionalized in a preliminary way. I feel it needs a great deal of expanding.

All Hands: Are you speaking, sir, of the new LMET (Leadership and Management Education and Training) program currently being developed?

ADM Hayward: That's correct. It is my view that most leaders are made, not born. They become leaders through the development of their various talents. Some are stronger than others. But most of us learn to be leaders through observing both good and bad leaders. We often learn most by our mistakes rather than our achievements. So I want to strengthen our leadership training in a way that reaches a much higher percentage of our chain of command.

I also want to concentrate on those things I think influence the enlisted careerist; to improve the prestige of career personnel so that a naval career will, in fact, be satisfying to the professional. We will then have more people wanting to join the Navy and a much higher percentage wanting to stay in the Navy.

All Hands: Do you have a specific approach in mind?

ADM Hayward: You can't single out one or two things that are going to make a major change or we would have done them. Leadership is a major area though. You become career motivated by virtue of the way in which your command functions and operates. I am also thinking of the way in which the chain of command can be strengthened to the point where the careerists—the chief petty officer, first class and those officers who have established themselves as careerists—carry a greater share of responsibility in the chain of command. They should have greater authority to make decisions and be accountable for them. That will bring out the best in the best people. The better people will have greater job satisfaction and will want to stay on in the naval service.

All Hands: Are you saying some people could find themselves assuming greater authority than they traditionally have in the past?

ADM Hayward: The authority has been there but we haven't taken advantage of it. Senior petty officers, particularly, have found their authority eroded, in their view. I want to help restructure that so they feel more comfortable with their authority and responsibility and, hence, will exert more and do a better job.

All Hands: If you were asked why an individual should make the Navy a career, how would you reply?

ADM Hayward: First, if an individual is looking for a life of riches and wealth, he's looking in the wrong direction. That isn't why we serve in the Navy. But if you are looking for an opportunity to accept responsibility, then the military services represent the type of challenge a talented individual will find a great deal of satisfaction in pursuing.

I've never had a job in which I was able to put my arms around all my responsibilities. There was always more to do than time to accomplish it. This meant it was always a challenge to get on with tackling the job. There was no burden involved. Rather, it was a chance to seek ways to further expand one's own capabilities. That's the strength of naval service—for both officer and enlisted. It is one's own perspective of what you are trying to accomplish in life. A naval career provides the opportunity for one to reach out just as far as he wants.

All Hands: Statistics, like rising attrition/desertion and falling recruitment rates, indicate the Navy faces real personnel problems. To what do you ascribe these problems and how, specifically, do you intend dealing with them?

Interview with ADM Hayward:

ADM Hayward: I'd like to set the record straight. The question implies more difficulty than we are currently experiencing. I did say I consider the personnel picture to be of major importance and that it will receive my highest priority because I believe manning the fleet with quality people is going to be a difficult task.

But the view that the Navy is in trouble today because of desertion rates, difficult recruiting and retention problems is overstated.

We have taken a number of corrective actions that are effective today in countering the trend. We are seeing distinct improvement in the absenteeism problem, doing well in retention for the most part, and our recruiting is good in terms of the quality of people we are bringing in.

Those are the positive aspects of the picture at the moment. But I'm not willing to accept that we don't have some difficult challenges ahead. The most difficult will be in the retention of our career personnel. I want to focus on things we can do to improve retention of mid-career petty officers, those with eight to 12 years of service in whom we have invested a great deal of time and training, those who have specific skills and have proven themselves to be real contributors. We're not hanging on to nearly enough of those individuals, and I want to take every possible action to encourage that group of enlisted people and junior officers to recognize the high potential of a naval career.

I think some of our absentee problems and retention issues were brought about by the very stringent demands we have placed on our ships' personnel, in particular those in the engineering ratings. Our strenuous efforts to upgrade the engineering standards led to an enormous amount of pressure on our people, plus long and tough working hours. In general, they responded superbly. The fact is the fleet is in far better condition than it was three years ago because of their efforts.

The Fleet Readiness Improvement Program has now been in effect long enough that the results are clearly here. We have proved that the high professional standards we've demanded were needed. We now realize we needed to place high demands on ourselves in a professional way because the Navy is a much more sophisticated organization than it used to be.

I think we've had retention problems because a great many of our people are uncertain about the future.

I think there has been a tremendous dwelling upon negative aspects of what to anticipate in the future and this has had a detrimental impact on the general attitude across the board. It has led to much uncertainty. People have begun asking, "Should I stay in this outfit for another 10, 15 or 20 years when we're not sure what's ahead?" We've overreacted to that and we need to take a more mature focus on the situation.

All Hands: What are your personnel retention goals?

ADM Hayward: My retention goal is to retain every good man and woman in the United States Navy. There isn't a

". . . My retention goal is to retain every good man and woman in the United States Navy. . ."

specific percentile goal in any area. We want to hang on to everybody who has potential, who has proven to be a reliable performer. For every second or first class petty officer we retain, that's up to four recruits we don't have to recruit, train and bring up to that point of expertise. Obviously, the thing for us to do is a better job of retaining our career people.

All Hands: Would you comment on discipline in the Navy today and what, if anything, should be done in this area?

ADM Hayward: After three years in the Pacific of seeing a lot of ships and squadrons and talking to many of our people, I'm not at all disappointed in the general state of good order and discipline in the Navy. Over the past couple of years I think there has been a strengthening of the chain of command and greater awareness on the part of senior petty officers and junior officers that they need to play a more active role in the maintenance of good order and discipline. I would hope to encourage that even more, because we've not quite achieved the level of discipline we would like to think the United States Navy represents.

All Hands: When women are permitted to be assigned aboard ship, how do you see them being employed at sea?

ADM Hayward: Quite a bit has been published in the last six months or so with respect to the Navy's plan to introduce women aboard ship. I don't see any reason to make any alterations to that plan. It is a very carefully structured program that will be carried out methodically so that it will not be detrimental to anyone, male or female. It is important we do it according to a very careful, discreet, well-thought-out plan. From what I have seen, that plan is in existence.

All Hands: Do you see the mission of the U.S. Navy changing in the future? What, in general terms, will the Navy need to meet her 21st century mission requirements?

ADM Hayward: I don't see any major change in the mission of the Navy up to the year 2000. The United States has become more and more an island nation as the world has shrunk in terms of the global scope of nations' interests, technological expansion and the ability to travel and communicate rapidly around the world. These things have forced the nations of the world to act more globally. The United States will be a major actor in that scene.

On that basis, the Navy will continue to play a very vital role in the security of our country's interests. The basic missions of the Navy will not change.

The changes in hardware that will occur will be evolutionary rather than revolutionary because our ability to convert technology into hardware is basically evolutionary. So, in spite of the fact we have some new concepts of warfare—laser technology, new forms of surface vessels such as surface effect ships and other hull forms, V/STOL applications—these concepts must be brought along and developed in a methodical, technological way. Generally, it will take time.

All Hands: Would you discuss the role of the aircraft carrrier in respect to any changes in the fleet?

ADM Hayward: I have said the Navy will change shape slowly between now and the year 2000. Hence, the role of the aircraft carrier will continue to be a principal element of our fighting capability. Air superiority will remain a basic requirement. Naval forces must not only control the surface of the seas and the oceans under that surface, but the air space above, as well. The battle group centered around the aircraft carrier will continue to be a significant factor in our ability to carry out naval missions.

All Hands: Are you speaking, sir, from both a defensive and offensive posture?

ADM Hayward: I don't look at them separately. As a world leader, the United States must have a Navy that is able to support our country in a dynamic way. Naval forces must be capable of taking the offensive, keeping any potential enemy on the defensive. Rather than our being in a reactive role, we must be capable of an active role, creating problems for potential adversaries rather than the reverse. Naval weapons must be capable of doing both offensive and defensive tasks.

". . . The battle group centered around the aircraft carrier will continue to be a significant force in our ability to carry out naval missions . . ."

All Hands: Are the oceans of the world, then, still an effective barrier?

ADM Hayward: I do not see the day when oceans will cease to be a major factor, if not the dominant factor, in national security, commerce and international affairs. As we look to the potential of the seabed resources, they would suggest there will be an even more important role for naval forces in the protection of our national interests.

All Hands: Along these lines, do you foresee any new or emerging problems that must be faced by the Navy in the near or long term?

ADM Hayward: Yes, I do, in a geopolitical sense. We have been observing throughout the last decade a further

expansion of Soviet interests in parts of the world which have not previously introduced a specific problem to the United States from a security point of view. This appears to be part of a long-term trend. The Indian Ocean, the continent of Africa and, perhaps ultimately, the continent of South America, are going to take on a greater and greater importance in our country's fundamental national security interests. In that sense, the continuing requirement for a strong, capable U.S. Navy seems pretty clear.

All Hands: Do you foresee any changes in fleet deployment cycles?

ADM Hayward: No, I don't foresee any major changes. My concern is going to be over establishing a proper balance between our force levels and their commitments. From my answers to previous questions, it's clear I believe the country will continue to rely upon the United States Navy for forward deployed forces as a fundamental element of our national policy. That reliance will place continued pressures on our Navy to be forward deployed, perhaps even more than we experience today. But the general policy of a six-month, portal-to-portal overseas deployment has a lot of logic with me and I'm going to support that to the best of my ability.

Where we are unable to meet the forward deployment requirements and also keep this goal in balance, then I am going to do all in my power to fight for more forces to meet the goal—or reduce the commitment.

The individual sailor must keep the importance of the Navy to our national requirements in perspective. As he deploys away from home for six or seven months, he should realize he is fulfilling a very important service to his country. I know we lose sight of that from time to time but it's part of the satisfaction we ought to be getting out of being naval professionals.

On my part, I will try to make sure the deployment ratio is a sensible one that does not violate the basic interests of young Americans today—to their family life as well as their job commitments.

All Hands: Does the Navy have, either under construction or on the drawing board, those systems it will need to increase its capability over the next few years?

ADM Hayward: Yes, we do. The decisions made in the past were intelligent ones. They have led toward the introduction of the right kinds of weapon systems to meet the threat of today. My job is going to be to ensure that the legacy I leave for future CNOs is similar to the good one I've inherited. It's a tremendous challenge today to articulate our requirements in an effective way to our civilian leaders here in the Department of Defense as well as to Congress. We need to make sure the Navy stays in the forefront of technology. Doing so will ensure we are a very competent Navy.

All Hands: Is the U.S. Navy the most powerful navy in the world today? Will it be so in the future?

ADM Hayward: We all know who our principal competitor is in the world today.

Ten to 15 years ago, one would not have asked that question because it was patently clear the United States Navy commanded the seas and was substantially superior. The very fact you ask the question reveals the uncertainty commonly held today that our leadership on the seas has been eroded.

It is difficult to give a black and white answer; a yes or no—we are first or second. Rather, I would suggest that there are many ways in which the Soviet navy is superior to the United States Navy today, and vice versa. It's clear the Soviet navy is larger than ours in almost every category of ships, with the exception of the attack carrier. In some areas, their quality is very good; perhaps every bit as good as ours.

On the other hand, we still have the capability of putting together a battle group and applying it to any ocean in the world where we consider the vital interests of the United States at stake. And that battle group would prevail in any contest with the Soviets.

All Hands: What are your thoughts on the eve of becoming the U.S. Navy's senior military member?

ADM Hayward: I'm very encouraged by the condition of the United States Navy today. My three years of experience with the Pacific Fleet gives me a great deal of optimism about the Navy. Our Navy is a very good navy. We have excellent equipment. The people who man the ships and squadrons are good, solid individuals who know their jobs and will respond to a crisis just as well as any group of Americans ever have.

When the chips are down, the United States Navy can be counted upon to carry out its role in a very effective way.

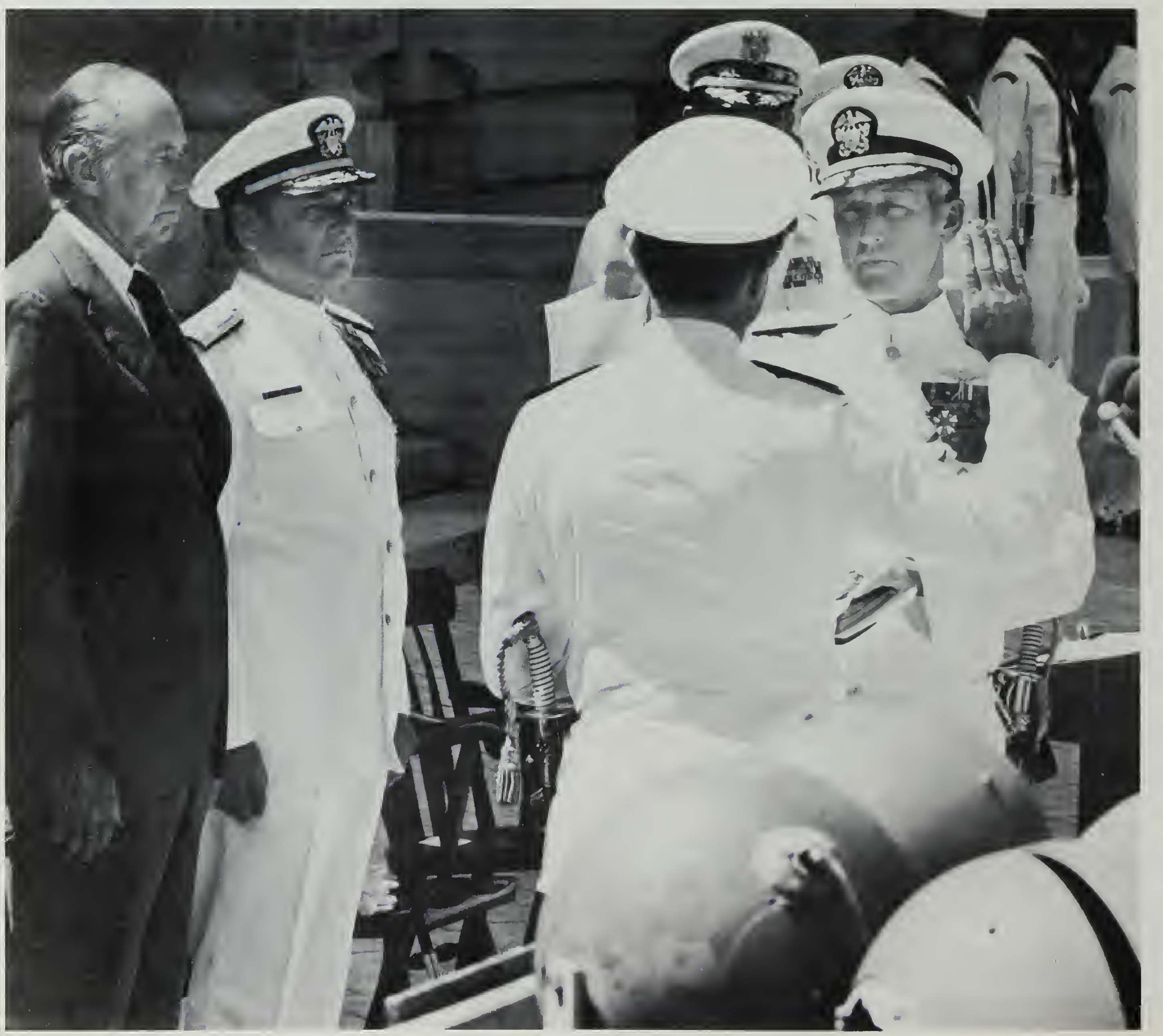
I intend to try to articulate this optimism to individuals in Washington and to the Navy in a way that will encourage us to recognize the strong points about our Navy. And there are far more strong points than weak ones. If we can do this, we will have a better perspective of our jobs, a better perspective of our future, much greater job satisfaction and much greater pride in our performance. ⚓

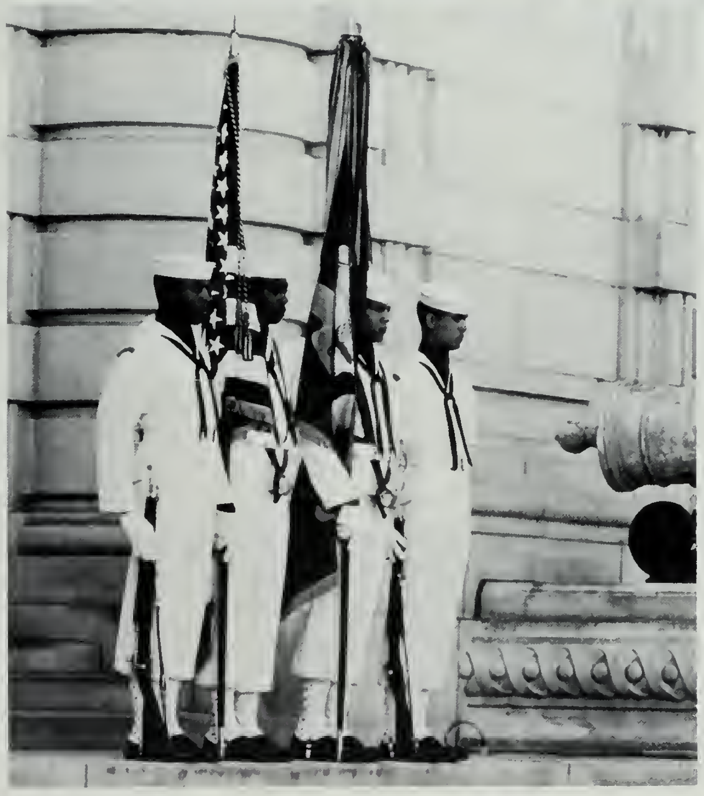
CNO Change of Command

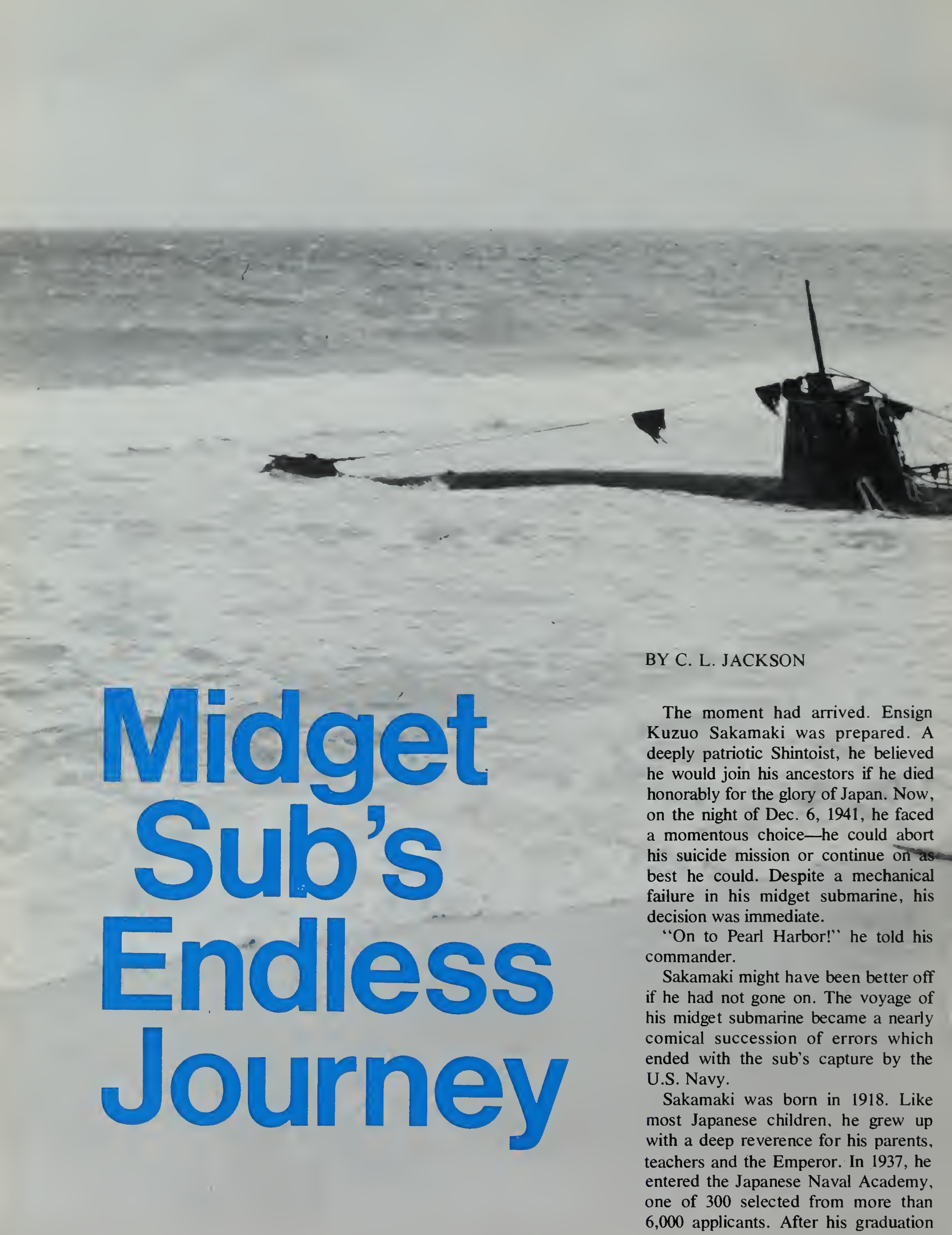
Admiral Thomas B. Hayward became the 21st Chief of Naval Operations in ceremonies held at the Naval Academy in Annapolis, Md., on July 1, 1978.

The new CNO takes the oath of office from Rear Admiral William O. Miller, Judge Advocate General, while Secretary of the Navy W. Graham Claytor Jr. and the outgoing CNO, Admiral James L. Holloway III, look on. ADM Holloway and ADM Hayward wish each other well; (at right, middle) Secretary Claytor presents the Defense Distinguished Service Medal to ADM Holloway. Naval Academy midshipmen meet ADM and Mrs. Hayward.

(Photos by JO1 Jay Davidson and PH2 Douglas Klotzbach.)







Midget Sub's Endless Journey

BY C. L. JACKSON

The moment had arrived. Ensign Kuzuo Sakamaki was prepared. A deeply patriotic Shintoist, he believed he would join his ancestors if he died honorably for the glory of Japan. Now, on the night of Dec. 6, 1941, he faced a momentous choice—he could abort his suicide mission or continue on as best he could. Despite a mechanical failure in his midget submarine, his decision was immediate.

"On to Pearl Harbor!" he told his commander.

Sakamaki might have been better off if he had not gone on. The voyage of his midget submarine became a nearly comical succession of errors which ended with the sub's capture by the U.S. Navy.

Sakamaki was born in 1918. Like most Japanese children, he grew up with a deep reverence for his parents, teachers and the Emperor. In 1937, he entered the Japanese Naval Academy, one of 300 selected from more than 6,000 applicants. After his graduation

and commissioning as a midshipman, he received a month of flight training and spent a year at sea. Eight months before Pearl Harbor, Sakamaki was promoted to ensign and ordered to report to the seaplane tender *Chiyoda* at Kure. There he learned he was to become a member of the Special Attack Naval Unit, handpicked to crew Japan's new secret weapon—the midget submarines.

The class A midget subs used at Pearl Harbor were built in Ohurazaki, near Kure. In all, 1,278 midget submarines were planned; only 438 were actually completed and, of these, 62 were class A submersibles.

Nearly 80 feet in length, the midgets were armed with two torpedoes and carried two-man crews. Thin-hulled, vulnerable to depth charges, class A midgets relied on their size and high speed to escape detection and capture—test models reached 24 knots. Additional hull fittings on the attack midgets used at Pearl Harbor slowed them to 19 knots but they could maintain that speed for 50 minutes. However, when the charge of the electric batteries was exhausted, the vessels became helpless.

After months of training in the small vessels, Sakamaki joined a squadron of 18 fleet-type submarines that steamed out of Kure in November 1941. Five of the larger subs carried a midget submarine on their decks. The midgets were to be launched under cover of darkness a few miles off the coast of Oahu the day before the air attack. They were to enter the harbor at night, lie in wait on the bottom, then rise to the surface during the attack and inflict as much damage as possible.

The Japanese made no provision for recovering the tiny submarines and the midgets' commanders knew they weren't to let their vessels fall into enemy hands. It was clearly understood that the crews would not be returning. Sakamaki's sub, with its malfunctioning gyrocompass, was particularly vulnerable.

Twenty minutes from launch, Sakamaki made the ceremonial preparations for a warrior's death. He wrote a farewell note to his father, showered, donned his uniform of *fundoshi* (G-string), white headband and leather jacket, and sprayed himself with the perfume of cherry blossoms. Sakamaki was ready to meet his ancestors.

He and his one crew member, Seaman Kyogi Inagaki, climbed into the midget submarine and secured the hatch. The mother sub, *I–24*, submerged. At exactly 11 p.m., the mother sub released the four large holding clamps. The midget was on its own.

Nose down, the little sub headed straight toward the depths. Sakamaki fought to right her and shouted to Inagaki to shift the ballast to the after compartments. Crush depth for the $^3/_8$-inch thick hull was 100 feet, a point they were rapidly approaching. Sakamaki reversed the engine to slow the downward dive. Finally, the sub backed toward the surface.

By the time they adjusted the trim, it was past midnight. Sakamaki wasn't worried. He thought that as long as they entered the harbor at night, no

Midget Sub's Endless Journey

harm was done. He and Inagaki relaxed, drank some saki and ate. It would be their last calm moment for a long time.

After proceeding on course, based on the magnetic compass, Sakamaki raised the sub slightly and peered through the periscope. They were headed the wrong way. He submerged and ordered a course change. A few minutes later, he dared another look. Now they were headed back to Japan. Course change after course change still found the sub going in all directions but the right one. As the hours passed, Sakamaki grew desperate. Soon the sun would be up and they were nowhere near the harbor.

Dawn brought Sakamaki some hope. From 35 feet down, his periscope picked up the sun's penetrating light. Using the sun as a reference, he got his bearings and took up a general course for Pearl Harbor.

Then he spied two patrolling U.S. Navy destroyers and decided to follow at full speed in their wakes. However, one of the destroyers—USS *Ward* (DD 139)—suddenly went to battle stations. She had picked up the midget sub on sonar. Five depth charges hit the water and the midget sub shook violently. Sakamaki, standing on the periscope viewing platform, was knocked out. Minutes later, when he regained consciousness, he found Inagaki still racing the sub in first gear but in the wrong direction. He ordered the sub turned around and made an attempt to escape the *Ward.* Once again, depth charges stopped them.

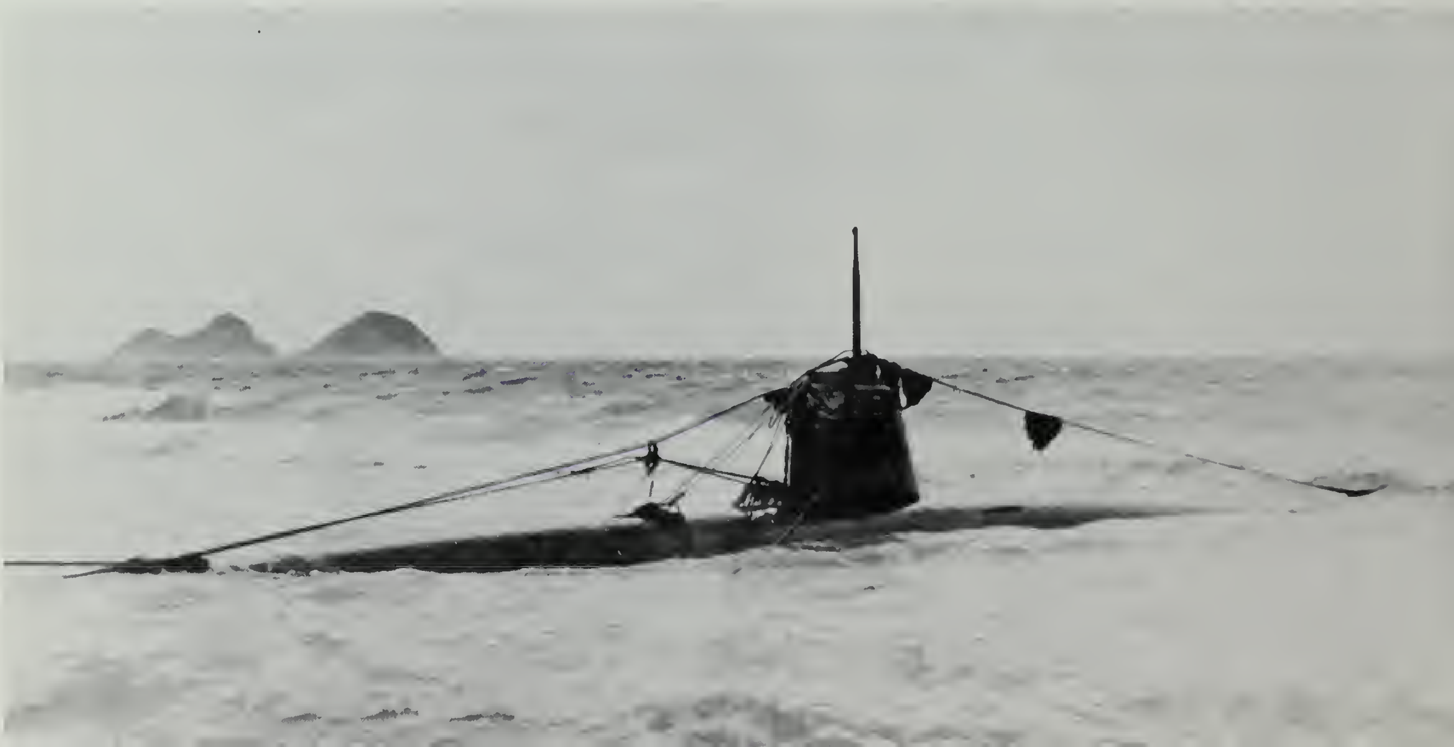
Later, cautiously, Sakamaki brought the sub back up to periscope depth. He saw dense columns of smoke rising over Pearl Harbor. Realizing there was no longer a need for secrecy, he decided to run the gantlet of destroyers on the surface so he could see where he was going. He hoped his unexpected burst of speed would put him beyond harm's reach. The sub sped forward, decks awash. Depth charges exploded all around them and, once again, Sakamaki was forced to submerge.

Veering off course 20 degrees, he counted to 10, desperately turned 40 degrees in a compensating direction, counted to 10 again, then straightened his course. He figured he had gone around the destroyers and thought he was entering the harbor.

But it wasn't to be. A reef at the right of the channel barred his way. The sub struck with such force that the bow was lifted clear of the water. Frantically, Sakamaki tried to rock the sub off the reef with all back full. As the destroyer USS *Helm* (DD 388) barrelled down on them at flank speed, Sakamaki threw the protesting throttle into full reverse and closed his eyes—his sub freed herself.

Making an emergency dive, the midget raced clear of a shower of depth charges. But now, gases leaked from damaged batteries, fouling the air with deadly smoke.

Right: Jackson, a month after Pearl Harbor attack. Below: Midget sub beached on Oahu.



Still, Sakamaki made two more attempts to enter the harbor; he was turned back by depth charges. Shifting to ahead full, he promptly ran onto another reef, this one to the left of the entrance. Full astern did nothing to free them so they again began shifting the lead ballast aft. The task was painful; the shorting batteries caused continual shocks to pass through their bodies.

As Sakamaki was placing ballast in the stern, the sub slipped backwards off the reef. But before he or Inagaki could get to the controls, the sub hit the ocean floor tail first, causing still more damage. On top of it all, Sakamaki discovered the torpedo's firing mechanism would not work.

It was now past noon and Sakamaki still had not entered the harbor. He decided to use the submarine as a ram to set off the torpedoes. He raised the sub and adjusted the controls to full speed, but the craft's maneuvering ability had been completely destroyed. Without steering, all hope was gone. Defeated, exhausted and nearly overcome by fumes, the two men collapsed.

The rest of the day was spent in a daze—Sakamaki was unable to accept the undignified end to his mission. As darkness fell, he brought the sub to the surface and opened the hatch. When he awoke again at dawn, he discovered that they had drifted within 700 feet of the shore. Excited, he shook Inagaki awake. If they could beach the craft, they might be able to repair the steering mechanism. Sakamaki tried to start the engines but the batteries were depleted. As they drifted farther from shore, Sakamaki cried in frustration. Just then, a large wave picked up the sub and tossed it up onto yet another reef.

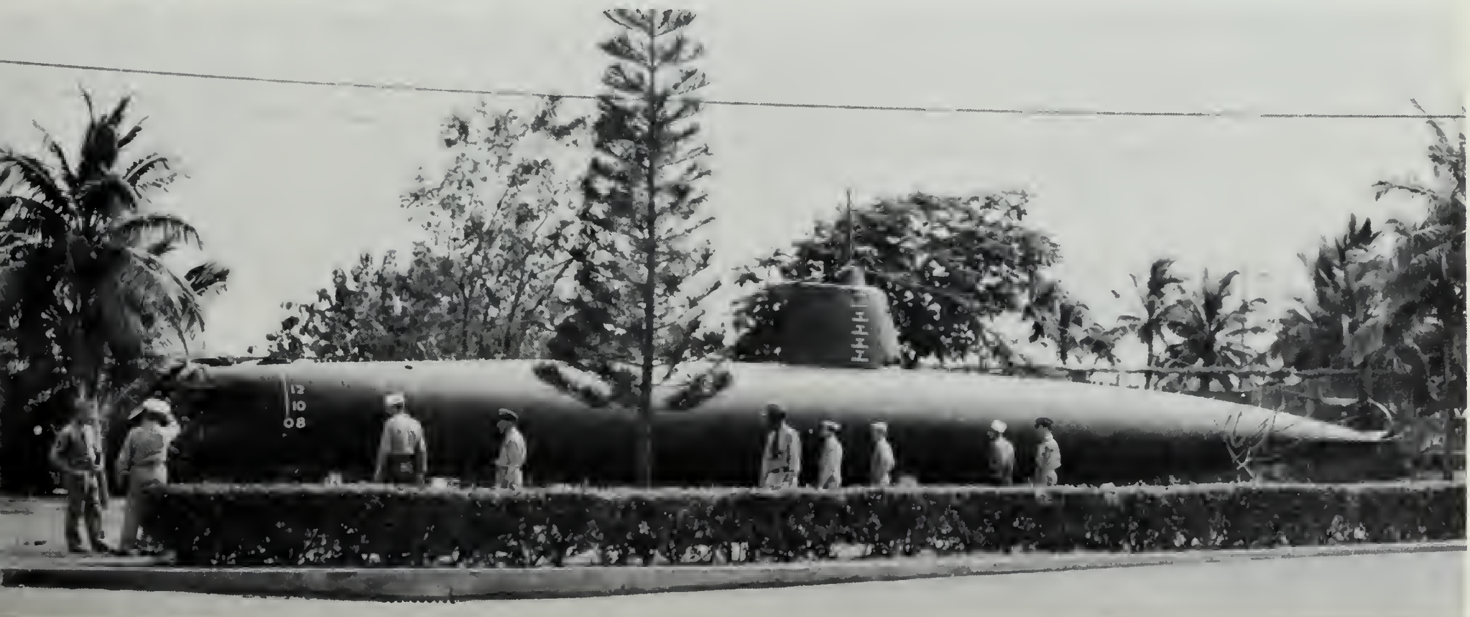
Failing was one thing, but to let a valuable secret weapon fall into enemy hands was unforgivable. The submarine had to be destroyed. Sakamaki rigged an explosive charge and lit the fuse. He joined Inagaki on the deck and secured the hatch. They jumped into the water for the mile-long swim to shore.

The rough water quickly separated them. Sakamaki was thrown up onto the shore at Waimanalo Bay near Bellows Field, 50 miles from Pearl Harbor, where he lost consciousness. Army Sergeant David M. Akui found him a few hours later, not far from the drowned body of Inagaki, and took him as the first prisoner of war of the U.S. in World War II.

Much of America's concept of Japan's military fanaticism was formed from the questioning of Sakamaki. Disgraced, he only asked for the honor to commit suicide. After weeks of intense interrogation, however, Sakamaki was taken to San Francisco. He spent the rest of the war in various internment camps and after his release returned to Japan. Later he wrote a book entitled—somewhat pretentiously—*I Attacked Pearl Harbor.*

Of the five midget submarines launched on Dec. 6, only one made it into Pearl Harbor and fired its torpedoes. Immediately depth charged, it sank without causing any damage. Sakamaki's midget sub, perched precariously on top of the reef, became a target for patrol craft. It was bombed but never hit. The near misses jarred it loose from the reef and set it adrift toward the shore.

Left: Sailors inspect torpedo noses protruding out of sub's bow. Below: Sub on temporary display at Pearl Harbor before a war bond tour.



Midget Sub's Endless Journey

A salvage crew from Pearl Harbor Submarine Base was sent on Dec. 10, 1941, to board the Sakamaki sub. I was a radioman second class serving aboard the battleship USS *Pennsylvania* (BB 38) (which had been in drydock during the Dec. 7 attack) as part of CINCPAC's staff. Because of my slight build, I was selected to go aboard the midget sub and remove all communication gear for study.

The morning was cold and miserable as the salvage party climbed into a truck for a jostling hour and a half ride. When the truck finally stopped, we jumped out, happy to stretch our legs.

"What the hell is that?" someone asked in amazement.

Tethered to a palm tree, a long cylindrical object rolled in the surf about 50 yards from shore.

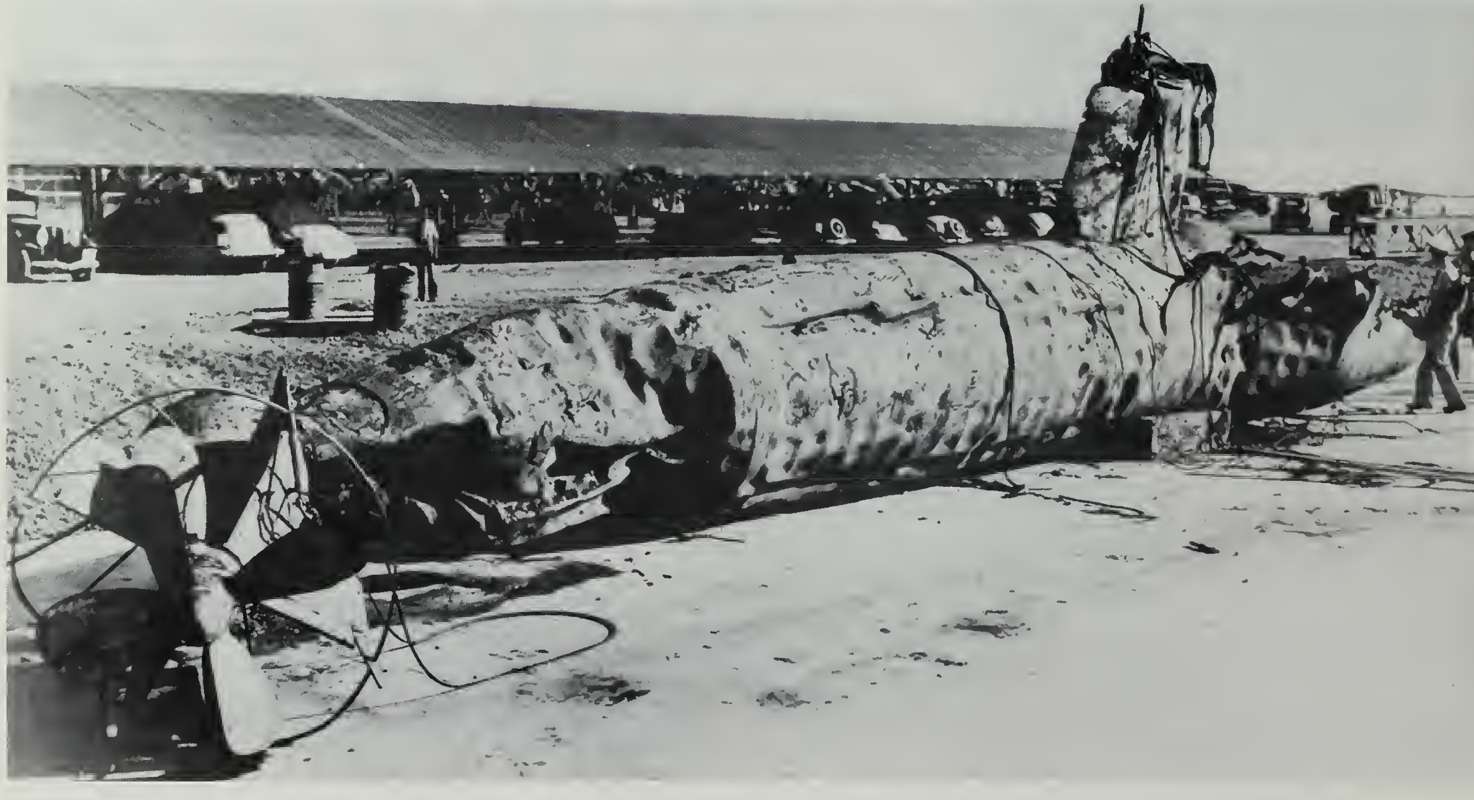
"Strip down and go take a look, Jackson," the chief of the salvage party told me.

Clad in skivvies, I dove into the surf and swam the short distance to the craft. When I got to what looked like the bow, I reached for the iron framework to board. From shore the chief yelled, "Get the hell away from there; those are torpedoes sticking out!"

I backed away fast, swam around to the side and pulled myself aboard. Shivering, I walked to the conning tower and pulled open the entrance hatch. The air was foul. After taking a few deep breaths, I eased myself through the small opening.

There wasn't much to see. The communication gear was on the starboard

Right: Japanese fleet-type subs captured at the end of the war. Below: The one midget sub that made it into the harbor caused no damage and was depth-charged, creating this washboard effect on her hull.



side. A navigation chart occupied the port side. I was shocked to find that it was an official U.S. Navy chart of Pearl Harbor with positions of most of the larger warships neatly penciled in. I gathered up as much as I could and headed for the beach. After my second trip, the chief and officer in charge of the salvage party came aboard while I removed the radio gear.

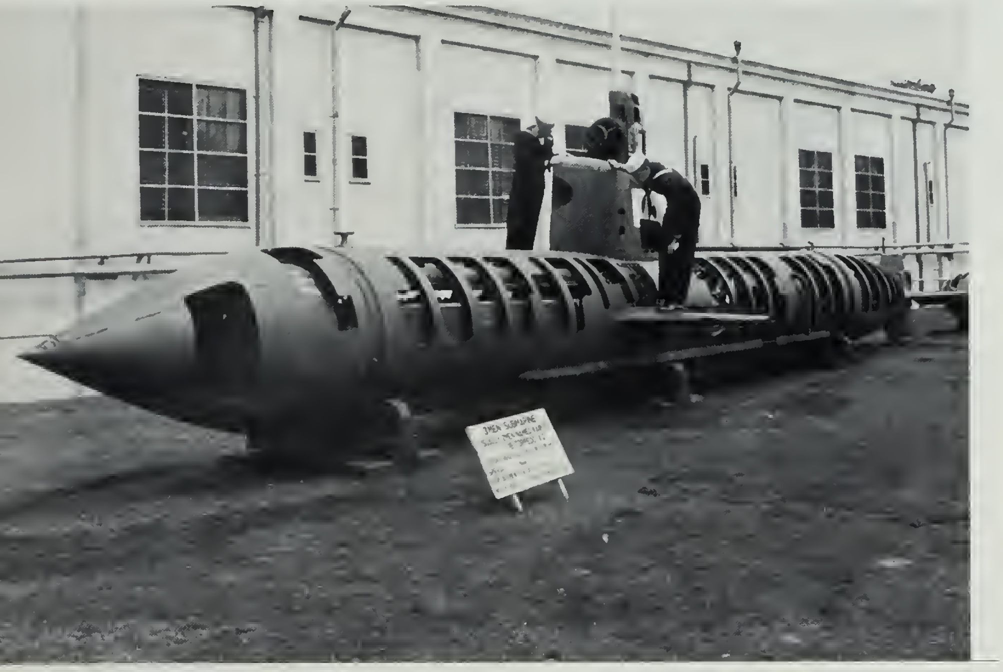
The chief discovered the explosives with the wet, slightly burnt fuse. Like most of Sakamaki's efforts this, too, had failed. We got the radio cables and motor-generator ashore and I came back one last time to get the transceiver. I pushed the radio up through the conning tower and paused a moment to take one last look before crawling out of the midget sub.

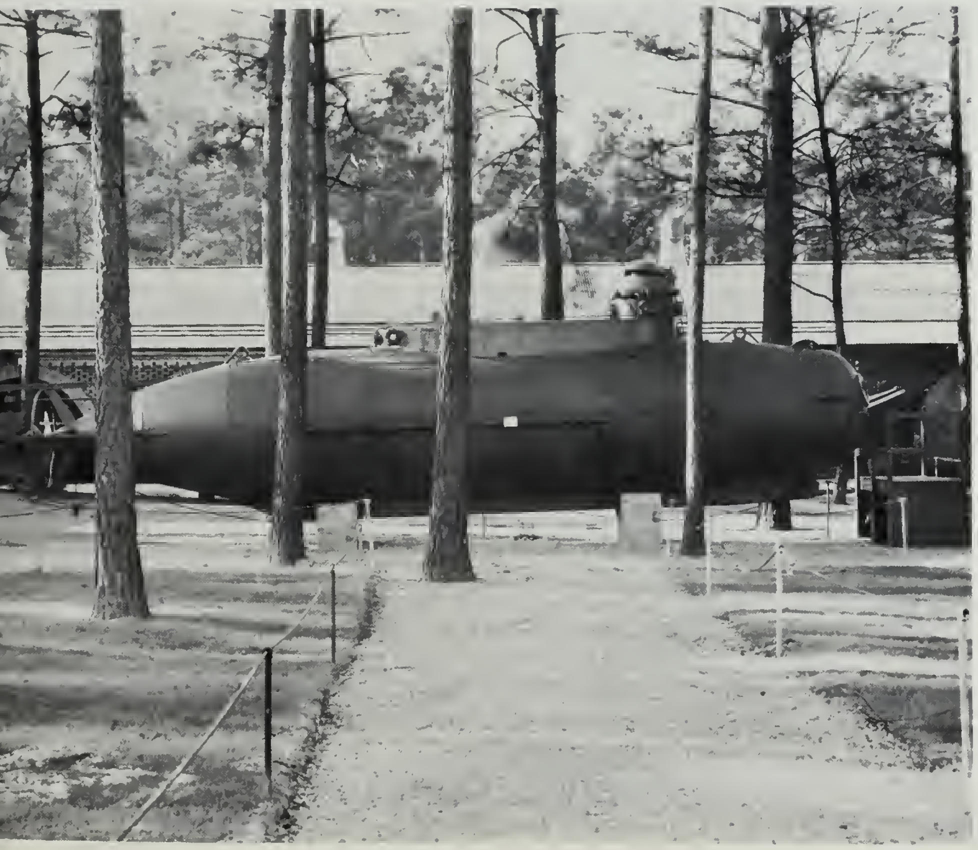
Later, the sub was disarmed and picked over completely. Japan's secret weapon was no longer a secret, and every sonar man in the Navy soon knew from then on that even a tiny blip on his screen spelled potential danger. The annotated chart I had retrieved from the sub showed the positions of many of our ships and a carefully plotted course for the small intruder. It was suspected that the craft had made an early morning reconnaissance of the berthing of fleet units and had successfully communicated the findings back to Japanese attack forces. That a sub could get past harbor entrance patrols and nets was alarming enough, but this chart revealed that the sub had traveled completely around Ford Island undetected! (It was this evidence that prompted the widespread belief that Japanese midget submarines "must have been in the harbor a few days before the attack and evidently were moving in and out of the harbor at will," as the Army Pearl Harbor Board summed it up.)

This opinion was reversed later when a chart found in a downed Japanese bomber proved that the submarine chart was only an attack plan, not the route of a daring reconnaissance mission.

Eventually, the midget sub was used in America's war bond effort. Viewing windows were cut into the sides and the sub traveled all over the U.S. to carnivals and state fairs. I was on leave in Pittsburgh, Pa., when I saw the midget sub again. Japan's secret weapon, draped in red, white and blue bunting, had become the means of raising money to build American ships to fight Japan.

(Editor's note: The ill-fated midget submarine that dropped "Prisoner No. 1" and Japan's secret weapon into America's lap is now on exhibit at the Lighthouse Museum, Key West, Fla. Similar Japanese midget submarines are on display at many locations, including Naval Submarine Bases, New London, Conn., and Pearl Harbor, Hawaii, and the Washington, D.C. Navy Yard.) ⚓





Left top: This version of a midget sub could carry a three-man crew and be rigged to fire torpedoes, or carry explosives in bow section and ram targets. Left: Another type of midget sub, this one at Mariners' Museum, Newport News, Va.

Rights & Benefits

Your best investment...
EDUCATION

More than 2,000 years ago, Aristotle wrote, "Education is the best provision for old age." Time has proven the wisdom of his observation.

Still, more than a good pension plan, education is the key to advancement in today's technical Navy. Ambitious Navy people can cash in on golden educational opportunities by signing up for VEAP, the Veterans Educational Assistance Program.

The new VEAP has replaced the old GI Bill. Navy people who entered the service after Dec. 31, 1976, are eligible to participate in the contributory program by setting aside as much as $75 each month in an education fund. Uncle Sam will add two dollars for each dollar saved by a Navy person. After contributing the maximum each month for three years, and adding the government's contribution, a Navy man or woman would have accumulated $8,100 which could then be used to pay educational expenses while in the service, after separation, or both.

Though a $75-per-month contribution is the maximum, Navy people can set aside as little as $50 each month or any $5 increment in between. Members must agree, however, to participate in the program for a minimum of 12 months. Exceptions can be made in cases of financial hardship.

VEAP is more than simply a savings account. Members will be entitled to the total amount in their account after completing their initial enlistment or period of obligated service, if they use it in a VA-approved educational program. If a member decides after being released from active duty not to continue his education, the member's share of the fund will be refunded within 60 days of notifying the Veterans Administration.

If, after attending school for several months, a veteran or active duty service person decides to drop out, he may withdraw the remainder in his fund or leave it in anticipation of returning to school at a later date.

Matching funds will be paid to students for the same number of months as they participated in VEAP. If a Navy person contributed for 24 months, for instance, he or she could receive as much as $225 a month for 24 months ($75 contributed + $150 matched funds = $225).

The following chart shows how much you can save through VEAP:

Your contribution	You save	Government contribution	Total
After One Year			
$50.00 a month	$ 600.00	$1200.00	$1800.00
$55.00 a month	$ 660.00	$1320.00	$1980.00
$60.00 a month	$ 720.00	$1440.00	$2160.00
$65.00 a month	$ 780.00	$1560.00	$2340.00
$70.00 a month	$ 840.00	$1680.00	$2520.00
$75.00 a month	$ 900.00	$1800.00	$2700.00
After Two Years			
$50.00 a month	$1200.00	$2400.00	$3600.00
$55.00 a month	$1320.00	$2640.00	$3960.00
$60.00 a month	$1440.00	$2880.00	$4320.00
$65.00 a month	$1560.00	$3120.00	$4680.00
$70.00 a month	$1680.00	$3360.00	$5040.00
$75.00 a month	$1800.00	$3600.00	$5400.00
After Three Years			
$50.00 a month	$1800.00	$3600.00	$5400.00
$55.00 a month	$1980.00	$3960.00	$5940.00
$60.00 a month	$2160.00	$4320.00	$6480.00
$65.00 a month	$2340.00	$4680.00	$7020.00
$70.00 a month	$2520.00	$5040.00	$7560.00
$75.00 a month	$2700.00	$5400.00	$8100.00
			(Maximum Amount)

Navy people who came on active duty before Jan. 1, 1977, cannot participate in VEAP, but they are still eligible for benefits under the previous GI Bill. In fact, after formulating VEAP, Congress passed another educational bill which increased GI Bill benefits for veterans not eligible for VEAP.

Called the G.I. Bill Improvement Act of 1977, it increased educational benefits by six percent for veterans not eligible for VEAP and required that benefits be used within 10 years of discharge or by Dec. 31, 1989 whichever comes first.

Single veterans going to school full time in a VA-approved educational program now receive $311 each month. Veterans with one dependent receive $370 a month; with two dependents, $422, plus $26 a month for each additional dependent.

The new law also increased the maximum amount available for VA educational loans to $2,500 per school year, payments for tutorial assistance, and hourly rates for VA work-study payments.

Eligible members interested in using their GI Bill educational benefits, even while on active duty, should contact the educational services office or their career counselor.

Test Pilot School

STORY BY JOC DAN GUZMAN
PHOTOS BY PH1 T. MITCHELL

The Patuxent River area of southern Maryland is known for its countless waterways and beautiful woodlands—a sportsman's paradise. For the U.S. Navy it has been an ideal environment for learning, an area unhampered by population growth and the accompanying industrial pollution.

The first jet-powered aircraft was tested at the Patuxent River Naval Air Station in 1945; night fighter tactics were developed there. Work on discovering the weaknesses of enemy aircraft in World War II was also undertaken at Pax River—using captured enemy planes.

From such testing evolved the Flight Test Pilots' Training Program, with an informal curriculum presented three half-days a week over a nine-week period. Graduates received a certificate along with a useful memento, a six-inch slide rule. In 1948, when a Test Pilot Training Division was formed, the curriculum was expanded to six months.

Formalization of test pilot training generally is credited to Captain Sydney S. Sherby, Admiral Thomas F. Connolly, and the late Vice Admiral Frederick M. Trapnell. The full-fledged U.S. Naval Test Pilot School (TPS) came into being in 1958. The scope of instruction continued to grow with the addition of a helicopter flight syllabus in 1961. Today, the 11-month course is divided into two phases, academic and flight.

Navy line crew member helps a TPS student strap himself into the ejection seat of an F-5.

Famous graduates of the school include astronauts Colonel (now a Senator from Ohio) John H. Glenn Jr., Commander M. Scott Carpenter (USN, Ret.), and Rear Admiral Alan B. Shepard Jr. (USN, Ret.).

Though assignment to the school continues to be highly prized by young naval aviators, it is still "a hell of a lot of hard work," according to Commander J.D. Hamilton, the school's director.

The basic mission of the Test Pilot School is to train experienced aviators, flight officers and engineers to become qualified test pilots, test flight officers and test project engineers. Additionally, the school provides a technical and scientific advisory group to the fleet, the Naval Air Test Center or any activity requesting assistance, from the National Aeronautics and Space Administration on down.

"In 1966, with the input of naval flight officers," said CDR Hamilton, "and the advent of airplanes like the F–4, A–6 and others coming down the road that had more than one seat and more than one function, we added Navy Flight Officer (NFO) training."

Number two man in the cockpit, the NFO is taught to evaluate weapons systems, radar, anti-submarine systems in the P–3 and S–3 aircraft and electronic countermeasure systems.

"In 1975 the airborne systems

Facing page: Aviators from all points of the compass come to TPS to learn to be test pilots. Royal Air Force Flight LT. Geoffrey Peck prepares to climb into an F–5.

course was added," said Hamilton, "and, in 1977, we started working with the vertical short takeoff and landing (V/STOL) course, which will help with the V/STOL-type aircraft.

"Our main objective, though, is to cycle young aviators coming from fleet operational tours so they may better relate the capabilities of the airplanes and weapons systems to the mission for which they were designed.

"We get a good cross section of people here, from fighter and attack pilots to the ASW and helicopter communities."

Though a good percentage of the pilots are from all the armed services, the school also gets those from the National Aeronautics and Space Administration, the Department of Commerce and the Coast Guard. Additionally, aerospace contractors send representatives, mostly engineers, to the school as do all the allied or free world countries.

U.S. Navy pilots attend other test pilot schools as well through an exchange program with the Air Force Test Pilot School at Edwards Air Force Base, Calif., the Empire Test Pilot School in England, and Etner in France.

The curricula of the schools are basically the same, but the Pax River school is tasked with a number of special test projects and, sometimes, evaluating and trouble-shooting. As an example, when the Marine Corps was thinking of buying the *Harrier,* a TPS team did a complete, preliminary evaluation of the aircraft. Also, when the Greek Air Force was having trouble with a particular type of training aircraft, the TPS dispatched one of its pilots from Pax River to Greece. He flew the aircraft and, eventually, with a team of maintenance people, pinpointed and solved the problem.

Pax River has a reputation worldwide as a demanding school with very high standards. According to CDR Hamilton, "We're doing everything we can to maintain those standards. It's just something that the students have to learn to live with.

"They have to be able to do their homework for the academic portion. Then, they must be able to put their studies aside when they get ready to fly and think about what they're going to do in the air that day.

"As far as the flying risk," he said, "on a daily basis we not only fly the airplanes to the very edge of their limitations, but we also collect data for reports while airborne."

What about the glamor of being one of the chosen few? When one hears the words test pilot, an image immediately comes to mind of the daring young naval aviator in white scarf and goggles.

Hamilton chuckles at this. To him, this is the stuff of which movies are made. He said that you won't find anyone in the business who thinks that way.

"There's a feeling of pride and accomplishment when you're working with new aircraft and weapons systems for the first time. I think a lot of guys get a kick out of being able to say they were the first Navy pilot to fly the F–14, A–6, P–3 or whatever. As test pilots, they are usually looked upon as the center of source information on that airplane. We try to emphasize the professionalism, not the glory," he said.

"The work is very hard, but I'm more concerned with their working too late at night, rather than knocking off early. It's competitive."

A board composed of representatives from the Naval Air Test Center, Commander Naval Air Systems Command, and the Bureau of Naval Personnel select student test pilots. Selection is based upon several factors: recent fleet operational experience, academic and flight background, and availability for rotation to shore duty. Also, they must be recommended by endorsing seniors concerning flying ability, motivation and professional competence.

Math through college algebra and physics are a prerequisite; calculus is highly desirable. Completion of at least two years of college level engineering helps.

The school presents short review courses in algebra, trigonometry, calculus and mechanics. This is followed by aerothermodynamics, a study of jet and reciprocating engines, aircraft and engine performance, airplane stability and control and weapons systems analysis. Also included are detailed studies of helicopters, flight test instrumentation and flight test project planning.

The student aviators—about 30 in each class—are exposed to a variety of aircraft and must be able to fly anything from the supersonic T–38 *Talon* to the unpowered X–26A glider. Currently, the school has 11 different types of aircraft: the T–2C *Buckeye,* TA–4 *Skyhawk,* A–7 *Corsair,* T–38A *Talon,* OV–1 *Mohawk,* NU–1B *Otter,* U–6A *Beaver,* AH–1 *Cobra,* CH–46 *Sea Knight* helicopter, OH–58A *Kiowa* and X–26A glider.

Flight phase of the curriculum includes planning, flying and writing reports of test flights. All flights are test flights with the exception of familiarization in new types of aircraft and night proficiency flying. The goal is to develop certain abilities in the potential test pilots, including those of observing and obtaining accurate test results, working as part of a team and reporting objectively.

Perhaps the most hair-raising portion of the flight phase and probably the greatest high-risk flying accomplished

at the school is the out-of-control flight segment—recovering from an out-of-control spin.

Basically, out-of-control flight occurs when controls are positioned properly, but the airplane does not respond, goes into a spin, and plummets toward the earth.

The out-of-control flight segment includes the well-known upright spin with which almost every pilot is familiar. A couple of more frightening and disorienting spins are the inverted spin, where the pilot is upside down while spinning, and the coupled entry. In the latter, the aircraft alternates between rapidly tumbling head-over-heels and doing little yawing circles about the vertical tail. This action resembles the

DANGER
1. PUSH LATCH TO OPEN DOOR.
2. PULL "D" HANDLE OUT 6FT TO JETTISON CANOPY.
RESCUE

Top: Aircraft variety is a necessary asset for TPS, from fixed wing, such as an OV–1 Mohawk, *to the double rotor H–46* Sea Knight *helo. Bottom left: Their canopies open, Marine CAPT Dave Beard and Royal Air Force Flight LT Geoffrey Peck prepare for test hop.*

Below: Beard and Peck talk over a "gripe" with the line crew.

spin of a little maple leaf seed when it flutters to the ground.

The Naval Safety Center lists spins as the probable cause of about 20 aviation accidents each year. When a pilot's aircraft goes into a spin, the normal reaction is to get out fast.

Yet, test pilots are expected to push their airplanes to any limit required by a test project. That includes throwing the plane into a deliberate spin, calmly reading the instruments and discussing what is happening while the aircraft is out of control and plunging from 25,000 feet. Then, at precisely the right moment—usually 15,000 feet—the pilot brings the aircraft under control.

This ability and confidence are taught only at Pax River where five, qualified instructor pilots demonstrate out-of-control flight.

A program was started last year to train fleet pilots in out-of-control flight. It has already paid a direct dividend.

"One of the pilots we trained returned to the fleet and actually got into a spin in an F–4," Hamilton said. "The pilot was able to recover the airplane; both he and his skipper credited the recovery to the out-of-control flight training.

"We are now training seven to eight fleet pilots a month in this phase. In the near future, VF–26 on the West Coast will get five T–2C aircraft and we'll train five of their instructor pilots to demonstrate out-of-control flight. They, in turn, will train a large percentage of the fleet pilots in West Coast squadrons. VF–43 on the East Coast is also slated to take part in this program.

"The program is invaluable to the fleet," Hamilton explained, "especially because of the aircraft we use, the T–2C *Buckeye*. Its outstanding characteristic in out-of-control flight is that the controls can be set similar to the control positions on most any fleet-type aircraft—the F–14, F–4, A–7 or A–4, and it will recover from a spin with any of those different control positions."

Recovery of an aircraft from a spin

Top: Preflighting his aircraft, a TPS student checks the main landing gear for hydraulic leaks that could lead to trouble.

Bottom: The other half of TPS, a class with Dr. George Masters, Airborne Systems Instructor.

not only means the saving of a life but also a substantial saving in money. The Navy's first airplane in 1911 cost $5,500. Today's Navy plane costs as much as $20 million. If just one aircraft and its pilot can be saved as a result of this training, the cost of the program will have been paid for more than 20 times over again.

Saving aircraft and saving lives are an important part of the Test Pilot School's complex mission. Taken together as a package, the school's academic, ground and flight syllabus turns out the world's best pilots—those who follow in the footsteps of John Glenn, Alan Shepard and Scott Carpenter, an excellent company of Navy and Marine Corps aviators.

Gliders Build Confidence

Enlisted men have served in naval aviation since its beginnings in 1911 when they reported for duty with the first two naval officers to enter flight training. Today there are more than 25 enlisted aviation ratings, each as modern and complex as the aircraft the men serve.

One Navy man, however, has returned to the basics of naval aviation. Aviation Metalsmith Second Class Dale A. Dalka, until recently, was the only plane captain in the Navy who ran alongside his airplane holding the wing off the ground as the aircraft took off. Dalka is plane captain of two X–26A gliders—the only operational gliders assigned to a Navy command.

Just recently Dalka completed training another Navy man, Aviation Metalsmith Airman Andy Owsiak, to serve as a glider plane captain.

The importance of the glider to the Test Pilot Program is sometimes obscured by the fact that many pilots regard the glider part of their training as the only fun phase left at the Test Pilot School. The rest, to them, is all hard work.

In use for more than 12 years, the soaring program was instituted to increase the variety of airplanes a student test pilot should experience. In the glider, the student test pilot encounters considerably different handling qualities, landing techniques and airspeeds than he finds in powered aircraft. It introduces a wide range of landing distances, gives training in energy management, and provides appreciation and understanding of the meteorological conditions for gliding. This knowledge will come in handy if the pilot ever finds himself in a jet with a stalled engine.

The soaring program is a confidence builder. In the last phase, the student's glider is launched at 5,000 feet. He then must put the craft through its paces—spins, stalls and recovery. While still in the air, as with other aircraft, he must complete observation reports, detailing lessons learned.

This entire process begins with the man on the ground, the plane captain. When the student test pilot enters the cockpit of the X–26A glider, Dalka has

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U.S. NAVAL TEST PILOT SCHOOL

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Top left: LCDR J.L. "Cork" Corcoran keeps a steady eye on the yellow tow line, keeping proper tension and a low tow altitude. Top right: An X–26A banks steeply toward an auxiliary field for a perfect one-point landing. Below: Almost hovering over the airstrip, the glider makes use of its thin, narrow wings and slow flying capabilities.

already put his seven years of experience with gliders to use in the preflight inspection.

There are more than 26 items that must be checked in the pre-flight inspection. Dalka, with his ever-present screwdrivers and adjustable wrench, meticulously goes over the aircraft checking the cables, fuselage and wings. He ensures the radio battery is charged, and sees that the control stick works properly. The list goes on.

"I've been plane captain for eight different types of aircraft," Dalka said, "but I like gliders best—they're more interesting. During my first four years with gliders here I used to do much of the maintenance work myself. Now a civilian corporation does the work."

He knows the gliders intimately. To become plane captain he practically memorized the Naval Air Training and Operating Procedures (NATOP), much like an owner's manual for a car. He then had to pass a comprehensive written exam.

Additionally, he is well versed in the low-speed, propeller-driven U–6 *Beaver* tow plane.

After hooking the *Beaver* to the glider with 1,500 to 2,000 feet of 2,300-pound test rope, Dalka helps the pilot into the glider and checks parachute, shoulder straps and seat belt. He then directs the tow plane forward until the slack is out of the line. Returning to the glider, he lifts the wing resting on the ground, keeping both wings level.

The tow pilot moves his rudder left and right, signaling, "Is everything ready?" and the glider pilot gives the thumbs up signal to Dalka. The U–6 then begins to tow the glider, with Dalka running alongside holding the glider's wings steady and level until aerodynamics takes over and levels out the glider.

For Dalka, paper work is ever present. He must keep the gliders' logs and records or yellow sheets—entering the pilot's name and social security number, and the takeoff and landing times.

Sometimes, Dalka goes along for the ride. "It is just great," he says, "the most beautiful flying I've ever done. You are really free up there—no noise except the whispering of the wind."

THE GLIDER IN NAVAL AVIATION

Jan. 31, 1930— Lieutenant Ralph E. Barnaby made a successful air-to-ground glider flight, dropping from the rigid dirigible USS *Los Angeles* at an altitude of 3,000 feet over Lakehurst, N.J.

June 6, 1933— Two *Franklin* gliders were received at NAS Pensacola; instructor training in the new craft began immediately under LT Barnaby. Glider training, as an experimental feature of the training program, continued into 1936.

April 19, 1941— Development of a GLOMB (Glider Bomb) guided missile was initiated at the Naval Aircraft Factory. The GLOMB was a glider designed to be towed long distances by a powered aircraft, released in the vicinity of the target, and guided by radio control in its attack. It was equipped with a television camera to transmit a view of the target to the control plane.

Jan. 30, 1942— The Secretary of the Navy authorized a glider program for the Marine Corps consisting of small and large types in sufficient numbers for the training and transportation of two battalions of 900 men each.

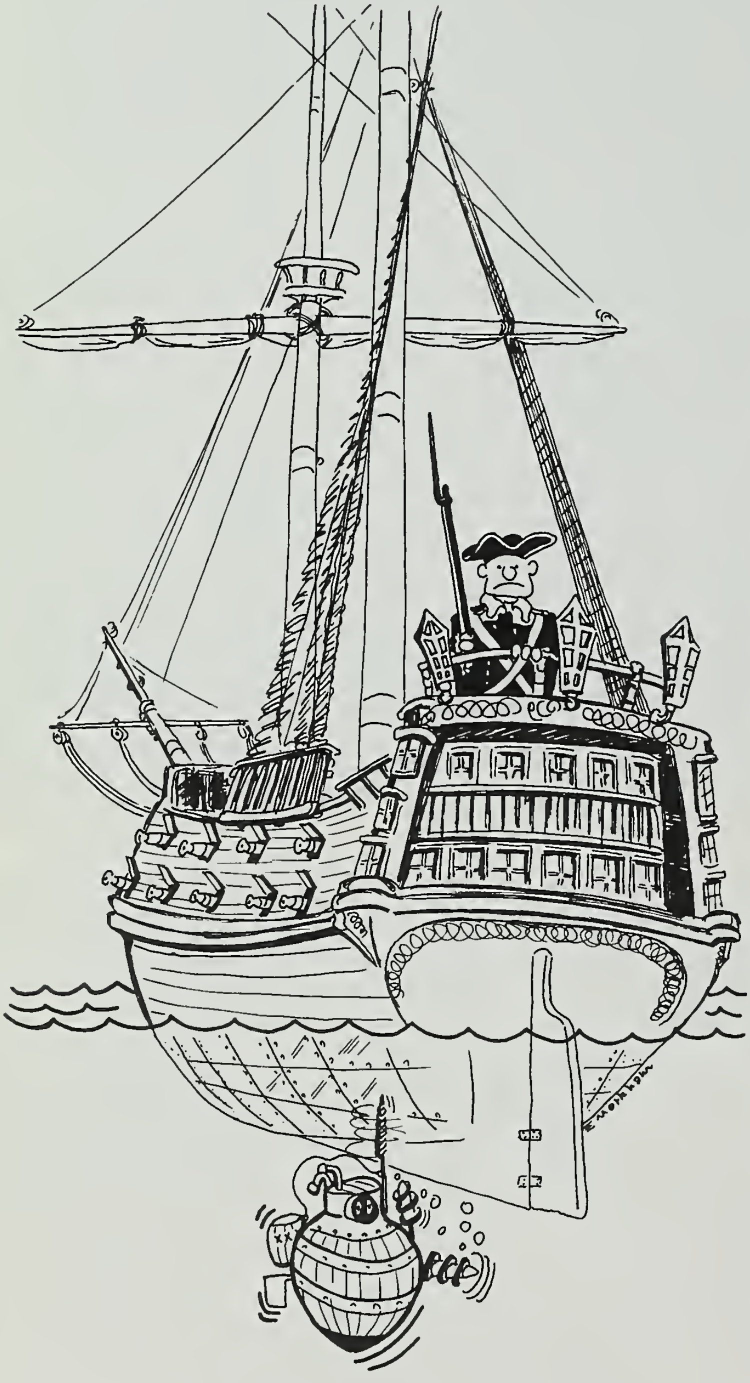
May 10, 1942— The possibility of increasing the range of small aircraft, by operating them as towed gliders, was demonstrated at the Naval Aircraft Factory when Lieutenant Commanders W.H. McClure and R.W. Denbo hooked their F–4Fs to tow lines streamed behind a twin-engined airplane, cut their engines, and were towed for one hour at 180 knots at 7,000 feet.

April 4, 1943— The Naval Aircraft Factory reported that, in tests of an automatic flying device for use on towed gliders, the LNT–1 had been automatically towed without assistance from the safety pilot.

May 18, 1943— The program for the use of gliders as transports for Marine Corps combat troops was cancelled, thereby returning the Navy's glider development to an experimental basis.

Later in 1943, before abandoning its glider program, the Navy acquired a total of 13 troop-transport gliders. These could accommodate 15 fully armed troops or one jeep or a 75mm field gun, which could be loaded or unloaded through the hinged nose. The Navy also developed a unique wooden 12-seat flying boat transport glider. Only four were built. Larger amphibious gliders, with twin hulls and accommodating 22 troops were ordered, but never built.

Grains of Salt



Sgt. Lee's adventure with the Turtle

BY YN1 GEORGE D. CAMPBELL

A few hours before dawn on Sept. 7, 1776, Sergeant Ezra Lee of the Seventh Connecticut Regiment boarded what appeared to be a giant, wooden egg floating in New York Harbor. The "egg" was America's first operable submarine. Perhaps it could be called, for that matter, her top-secret weapon named the *Turtle*. Lee was her first captain and crew.

Turtle's mission was to sink a target of necessity, Admiral Lord Howe's 64-gun flagship *Eagle*, then lying at anchor with a convoy of British warships off Governor's Island. Lee's assignment was fraught with danger and doomed from the start—but more about that later.

David Bushnell, an inventor obsessed with the idea of building an underwater craft which could be used successfully against the British fleet, designed *Turtle*. Freely using ideas of the French marine scientist Denis Pinel, Bushnell built an oaken-frame craft which stood six feet high, and was bound by huge iron bands holding the caulked planks in place.

Having run tests on *Turtle* himself, school teacher Bushnell was confident his sub contained sufficient air when submerged to sustain life for 30 minutes. As a precautionary measure, however, *Turtle* was equipped with a 200-pound disposable keel attached by chain which could be released if emergency surfacing were required.

Even with every possible disaster planned for or considered, opponents of *Turtle* termed Lee's mission "mad and suicidal" because they thought anything could go wrong. If the spring-loaded cock should jam, Lee would drown; the 1,000 pounds of lead ballast could suddenly drop, thus flipping the craft and trapping the operator; and who knew what dangers debris in the harbor held for *Turtle*'s eight windows?

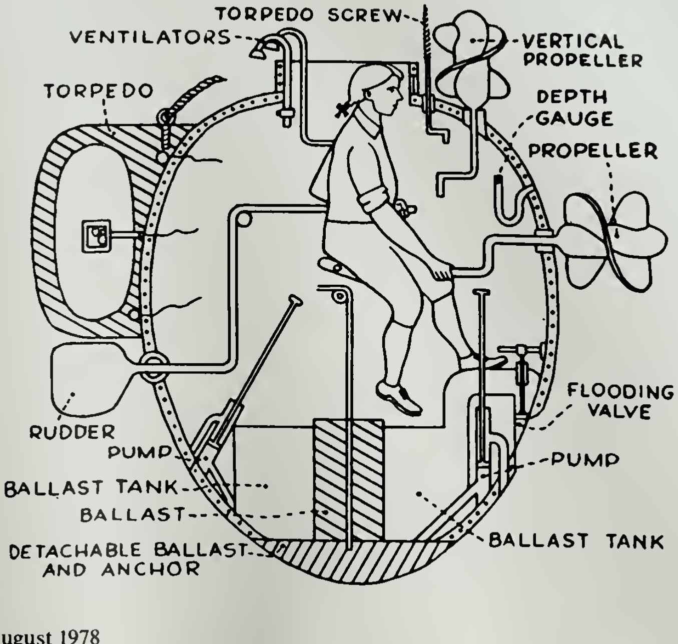
Still, the British hold on New York had to be broken and any course offering hope to that end was considered. Already, Long Island was occupied and the harbor blockaded. After three chilling days of fighting in the rain, General Washington was elated to receive General Israel Putnam's order to proceed with an attack by *Turtle*.

Sergeant Lee embarked and the hatch was clamped shut behind him. Harnessed to the stern of *Turtle,* just above her rudder, was a magazine containing 150 pounds of gunpowder and a timing mechanism.

Lee was ordered to attach the magazine to *Eagle*'s hull by means of an anchoring screw controlled from inside the sub, set the timing mechanism and escape undetected.

Vigorously pedaling the crank which turned the screw propeller, Lee guided his sub toward the enemy fleet. With precious little light seeping into the craft, Lee could barely read the water gauge and compass. Fact is, he bobbed right past *Eagle* before getting his bearings.

"By labor at the crank for the space of five glasses by the ship's bell or two-and-a-half hours," he finally arrived at the stern of Howe's man-of-war. When near enough to actually touch *Eagle,* Lee submerged and set to work fastening the "bomb" to the target.



Turtle's screw bore wouldn't penetrate *Eagle*'s hull. The sergeant later explained that "the entire hull [was] sheathed in copper; surely Putnam's military intelligence knew of the copper-clad bottom."

Later, Bushnell wrote, "Had [Lee] moved a few inches, which he might have done without rowing, I have no doubt he would have found wood where he might have fixed the screw."

Frustrated and fast depleting his oxygen, Lee brought *Turtle* to the surface. First light engulfed the craft and its captain could hear the Britishers on *Eagle* changing the watch. With the tides banging *Turtle* against the warship's side, Lee knew his mission had failed. No longer concerned with attaching the magazine, he feared for his life.

Opening the valve that started water flowing into the ballast tank, Lee submerged and went as fast as he could, making a direct course for Manhattan Island some four miles distant. With the tide in his favor, he could turn about two knots if all went well.

All didn't go well.

Not familiar with the harbor and frightened to boot, Lee had to resurface constantly to check his bearing and adjust his course. Before he reached shore, the British had spied *Turtle* and immediately launched a longboat to investigate.

Feeling the weight of the magazine, and with muscles aching and the enemy closing, Lee released the bomb in hopes "that if they should take me, they would likewise pick up the magazine and then we should all blow up together."

Approaching within 50 yards and seeing the magazine released, the British suspected a Yankee trick and aborted their chase. Shortly thereafter, Putnam dispatched a whaleboat which came alongside *Turtle* and towed her to safety.

About 20 minutes later, the harbor was rocked by a tremendous explosion which sent columns of water high into the air and caused the British to weigh anchor and seek safer anchorage elsewhere. *Turtle*'s magazine had exploded and, indirectly, had achieved its purpose.

The blockade of New York began to collapse and the Continental Army withdrew. Though the short career of *Turtle* had ended, a new chapter in naval history had begun—a book still being written to this day. ⚓

Eyes of the scientist:

UNDERWATER PHOTOGRAPHERS

BY PH1 JON SAGESTER

Members of the Atlantic Fleet Audio Visual Command's diving unit, Chief Photographer's Mate (DV) David Graver, and Photographer's Mate Second Class (DV) Larry Cregger, help Photographer's Mate Third Class (DV) Troy Gruber prepare for a dive at Webbers Falls Dam in Oklahoma.

Looking at the underside of an oil slick, are there long streamers hanging from it that increase its drag as it moves across the water's surface? Does it actually travel just below the surface or does it travel on the surface?

Scientists at the National Oceanic and Atmospheric Administration (NOAA) of the Department of Commerce needed answers to these and other questions for their research on the environmental impact of oil spills. To get the answers, NOAA went to Atlantic Fleet Audio Visual Command's (FLTAVCOMLANT) diving section.

"We have been ignorant of how thick patches of oil disperse in time and space," said NOAA's Dr. James Mattson. "Without answers to these questions, it really was impossible to develop any theoretical explanations for the movement of thick patches of oil."

When the oil tanker *Argo Merchant* ran aground in December 1976 and started breaking up off Cape Cod, a four-man diving team took underwater cinematography of the spill.

"The information the divers brought back was of tremendous value. It was used by the scientific community to develop mathematical models for the behaviour of thick oil," said Dr. Mattson. "Getting a visual observation of the underside of the slick had never been done before and could not be done once the incident was over. It is not likely a similar observation will have to be repeated in the future."

The work the diving photographers accomplished demonstrates their invaluable assistance to scientific research.

←

Photographer's Mate Second Class (DV) Ken Hess, left, helps fellow diver Photographer's Mate Third Class (DV) Troy Gruber who just emerged from diving in Argo Merchant *oil slick.*

UNDERWATER PHOTOGRAPHERS

"We're the underwater eyes of the scientists," Chief Photographer's Mate (DV) David J. Graver said.

From their base at Little Creek, the 10-man unit has deployed to the North Atlantic, the Caribbean and throughout the United States. They have performed at least six diverse jobs for the scientific community in the past couple of years.

For National Aeronautics and Space Administration (NASA), they filmed the underwater portion of a documentary on astronauts learning to build in space by simulating the conditions of weightlessness underwater. NASA uses such films as training aids.

In addition to scientific and engineering jobs, they are also tasked with performing more routine assignments such as photographing construction and surveying ships' hulls.

"If it can be done photographically underwater, we'll do it," said Graver.

The diver photographers are trained as photographers first and divers second. Like all Navy divers, they are SCUBA-qualified, and then trained through to second class divers (to 150 feet), first class divers (to 300 feet) and, finally, saturation divers.

Since the Navy has no formal training for underwater photography, team members must perfect their skills through on-the-job training. Each person must be proficient in still and motion picture photography and must be able to use a variety of cameras in color and in black and white.

A small community, with only 17 billets, the diver photographers respond to requests for their services from all government agencies. The FLTAVCOMLANT unit currently has two first class divers, one of whom is

a saturation diver. All others are second class divers.

Divers maintain a prestigious status in the modern Navy, but the photographer divers augment that position by providing images of the underwater world for those who do not have the opportunity to view it.

They are the Navy's window to an underwater world. ⚓

A Navy photographer/diver uses a Nikon F camera in an ocean eye housing to photograph the "world beneath." ⟶

Photographer/diving team poses for a photo with denizens of the deep.

Bearings

MSC Pacesetters

Ferne Doyle and Cristina Zarate, second classmen from the U. S. Merchant Marine Academy, Kings Point, N. Y., are living proof of women's adaptability to shipboard life. They recently completed an Antarctic cruise aboard Military Sealift Command's tanker USNS *Maumee* (T-AO 149), their second long sea voyage since entering the academy.

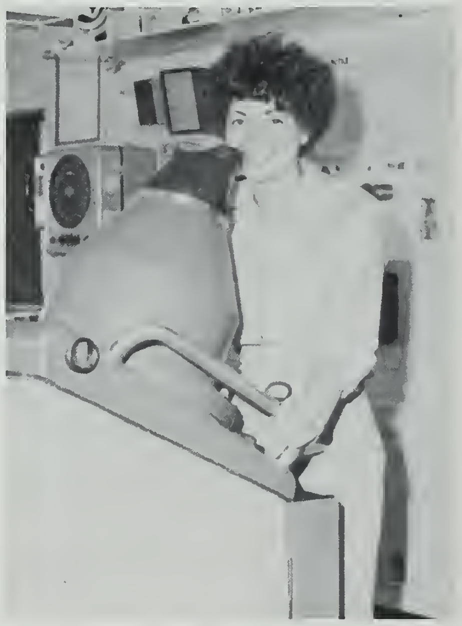
Zarate, an engine cadet, is learning practical and theoretical aspects of shipboard engineering—which means she spends a good part of her time in coveralls working in the engine room. Navigation and ship handling occupy most of deck cadet Doyle's time.

"You can learn a lot in school," Zarate explained, "but unless you go to sea and apply the theories to practical use, you can't see how things really work."

How did the men of the 30-member crew react?

Midshipman Cristina Zarate

"The men treated us just as they would treat any midshipman," Zarate said. Both agreed that the attitudes hardest to change were those of the older men. "Many felt we weren't strong enough or couldn't handle the physical labor," Zarate said. "After they saw that we were there to work and do what was expected of us, they accepted our presence and helped us."



Midshipman Ferne Doyle

For the most part, both women were satisfied with their life aboard ship. "This is a good ship," Zarate said. (*Maumee* is the fourth ship on which she has served.) "It's older and rolls a lot. Everybody has to cope with seasickness, but the longer you are on board, the easier it gets."

During their three-month training period aboard *Maumee*, the women participated in Operation Deep Freeze, the annual supply mission to McMurdo Station, Antarctica. Cadets from the academy train at sea for a year—six months as a sophomore and six months as a junior—aboard many different ships.

This year, the Kings Point School, like other federal and state maritime academies, had women members in its graduating class. After fulfilling requirements to become licensed merchant marine officers, all eight of the women who graduated this year from Kings Point were hired as permanent crew members aboard various merchant vessels.

Ten-Ton Hospital

If a dependent child wakes in the night because of an illness, help is usually as close as the nearest clinic or hospital—it's a convenience that many take for granted. On the Indian Ocean island of Mauritius, however, children are not so fortunate.

The island's medical facilities, which serve more than one million people, are limited, and children who require surgery have to be flown to such far-off places as England, Australia or Switzerland. Although the problem of caring for sick children on Mauritius is acute, it's one that is now being solved with the help of the Children's Hospital National Medical Center (CHNMC) in Washington, D.C., and the Navy's Project Handclasp.

Last fall, CHNMC sent 10 tons of hospital equipment, including beds, stretchers, wheelchairs, and operating room materials, to the Project Handclasp coordinator at San Diego. Arrangements were made to deliver the material to Mauritius, along with medical supplies, diapers, medications and a sewing machine workshop from the Project Handclasp inventory.

Recently, the USS *Fox* (CG 33) and USS *Hassayampa* (AO 145) arrived at Mauritius with the equipment. On March 12, Mauritius' Independence Day, 18 crates containing enough material to equip a 40-bed hospital were presented to the people of the island.

Although the hospital has not yet been completed, CHNMC and Project Handclasp have laid the groundwork to insure a healthier future for the children of Mauritius.

Early Arrivals

Whoever said that lightning never strikes twice in the same place wasn't counting on the Navy. In the Navy almost anything can happen and usually does.

In spite of the odds, two petty officers from the Naval Reserve Center, Long Beach, Calif., Yeoman Second Class Jesse Williams and Quartermaster First Class Roberto Baluyot, became fathers under rather unusual though very similar circumstances. Both drove their wives to the hospital, and neither made it in time. Williams was first. He delivered his daughter, Ursula, on September 15, 1977. Baluyot repeated the feat on March 2, 1978, when he delivered his daughter Valerie.

Despite rumors to the contrary, Captain William F. Bell, the Reserve Center CO, says he doesn't want members of his command to let this method of delivery become a trend.

The trend worrying the staff at the Reserve Center was started by YN2 Williams and his wife, Rita, when their plan to drive casually to the hospital was thwarted—he was forced to stop only a few blocks from their home to assist with his daughter's birth. Though the situation was alarming, Williams handled himself admirably, well almost. In his excitement, he told his wife that their Ursula was a boy. Later, at the hospital, a specialist, trained in such nomenclature, straightened him out.

Valerie Baluyot's birth was very much the same except that her parents were a bit more prepared. Since the Williams' experience had been the subject of considerable discussion around the Reserve Center, Roberto Baluyot decided to take along some towels, just in case.

Sure enough, on the way to the same Navy hospital he, too, was forced to stop and help his wife, Rosalia, with the impending delivery.

No such mistake was made by QM1 Baluyot as was made by Williams. Being an old hand at fatherhood, Roberto Baluyot knew instantly his Valerie was not a boy.—*YN1 James L. Dorman*

Eager to Start

An NJROTC unit in Guam that has sent 21 former members to the U.S. Naval Academy over the past few years recently got a chance to show their present crop of budding sailors what it's really like to serve in the U.S. Navy.

NJROTC cadets from the junior class at Father Duenas Memorial High School went aboard the amphibious assault ship USS *Tripoli* (LPH 10) for a 13-day orientation cruise from Guam to Subic Bay, Republic of Philippines.

The orientation cruise provided cadets an opportunity to observe life aboard a Navy ship underway. During the cruise, cadets were assigned to one of four groups and rotated through *Tripoli's* major departments: Operations, Engineering, Deck and Air. They stood indoctrination watches and received tours and briefings by each department.

While aboard USS *Tripoli*, the cadets also learned about the different Navy rates, how each rate functions in the department and the overall mission of the ship.

Bearings

Keeping Shipshape

Not many people exercise or lift weights at 3:00 a.m. There just aren't that many gymnasiums open at that time of the morning. But, there's one place where the time of day is of no concern to the physical fitness buff—the refurbished gym and sauna aboard the nuclear-powered aircraft carrier USS *Nimitz* (CVN 68).

Nimitz crew members waited patiently while six weeks of planning and hard work transformed an already adequate athletic facility into what they now consider the world's finest seagoing physical fitness camp.

A standing weight rack dominates the center of the main area and two heavy-duty cable pulley machines, an inclined bench and several multipurpose benches line the bulkheads around the gym. In addition to a stereo system, mirrors used to improve lifting form were installed.

The gym and sauna are open 'round-the-clock when *Nimitz* is at sea.

Mess Management Specialist Seaman Bill Fiore, physical fitness supervisor and gym project manager, feels that the improvements should help the crew become more interested in physical fitness. "I'm trying to stress the importance of staying in shape," he said. "In order to get results, though, people will have to show initiative."

Fiore foresees an athletic club forming soon with *Nimitz* physical fitness T-shirts available to those attaining a prescribed level of performance.

New In-Flight Fare

Used to be that air crews at Naval Air Station, Brunswick, Maine, ate an average, everyday, run-of-the-mill, brown-bagger's two sandwiches, banana, milk and cookies during their missions patrolling the North Atlantic.

Not anymore. Thanks to a team of Brunswick food service specialists, every person on every flight now has 14 different meals from which to choose for in-flight fare. It's part of a new program at Brunswick called Flight Deli.

The team, headed by Mess Management Specialist Second Class Mike Tice, established the Flight Deli to improve the quality and variety of meals prepared for aircrew members who often spend 12 to 14 hours at a time per flight. Those hours can be grueling. Meals in flight, therefore, are more than nourishment or hunger-stoppers. They also serve to break the monotony of long missions.

Of the 14 meals on the Flight Deli's menu, seven are cold ones ranging from the standard box lunch to a special dieter's meal of chef's salad and fruit. There are three frozen dinners, including turkey, beef sirloin and omelette, plus four unprepared component meals for those who prefer their own cooking. These component meals include the meats plus all the extras necessary to make the meals complete.

The menu may not be as large as some, but any choice is better than no choice at all.

Protecting Their Own

Winners of the Secretary of the Navy's Environmental Protection Awards for 1977 were recently announced in Washington. These awards are given to commands in recognition of outstanding efforts, innovation and all-around good housekeeping. They are also given to stimulate greater efforts in improving and protecting the environment.

This year's Environmental Protection Award winners are:

- USS *Howard W. Gilmore* (AS 16)—for the greatest initiative taken by a large naval ship toward operating in an environmentally acceptable manner. This is *Gilmore's* second consecutive award for environmental protection.
- USS *Garcia* (FF 1040)—for the greatest initiative taken by a small naval ship toward operating in an environmentally acceptable manner.
- Naval Air Station, Chase Field, Beeville, Tex.—for the outstanding environmental protection program sponsored by a large naval facility.
- Naval Fuel Depot, Jacksonville, Fla.—for the outstanding environmental protection program sponsored by a small naval shore facility.
- U.S. Naval Air Test Center, Patuxent River, Md.—for the outstanding environmental protection program sponsored by a naval research and development activity. This is the first time that an award has been given to an activity competing in a second category.
- U.S. Naval Supply Depot, Subic Bay, R.P.—for the outstanding environmental protection program sponsored by a naval industrial facility.
- Marine Corps Base, Camp Pendleton, Calif.—for the outstanding environmental protection accomplishment by a large Marine Corps activity.

Out*Fox*ing the Sea

Unmistakably, the mirror signals flashing across the Gulf of Siam on May 3 were signals of distress, and the alert signalmen aboard USS *Fox* (CG 33) caught them. When the *Fox* came alongside, the San Diego-based guided missile cruiser sent a rescue and assistance team to the stricken Thai fishing vessel which had been drifting on the open sea for 12 days. The craft's diesel engine and radio were inoperable and the 23 crewmen were down to a one-day water supply.

Machinist's mates took the fishing vessel's engine to the *Fox's* machine shop for repairs, while electronics technicians completely restored the radio. Other crewmen replenished the fishing boat with water and other supplies.

Fox's crewmen then reassembled, drained, flushed and refilled the repaired engine with fresh oil. It was tested and successfully started; the Thai boat headed for the nearest port under its own power.

Fox, commanded by Captain James F. Kelly Jr., is currently operating as part of the Seventh Fleet.

From Pacific Islands to Pensacola...

GRADUATES of '78

June graduation ceremonies are fairly standard—except when the U.S. Navy gets involved.

The Navy was involved in at least three unforgettable high school graduations this spring: one aboard the USS *Midway* (CV 41) at Yokosuka, Japan; one aboard the USS *Lexington* (CVT 16) at Pensacola, Fla.; and one on the Pacific island of Ulithi.

On *Midway*'s hangar deck, 63 members of the class of 1978 from Yokosuka's Nile C. Kinnick High School filled a stage inboard of the number one elevator. *Midway* crewmen, many of whom have dependents attending Kinnick, had a special interest in the ceremony.

During the June 2 exercises, Captain Thomas Brown III, Commanding Officer, presented graduate Mark Harper with a letter from Admiral James L. Holloway III, then Chief of Naval Operations, congratulating him on his

Clockwise from left: Rear Admiral David S. Cruden presents a plaque to an Outer Islands High School honor graduate. Graduating senior Eugene Yamamoto addresses his classmates aboard USS Midway. *Graduates of Nile C. Kinnick High School. Mark Harper receives his appointment to the Naval Academy from* Midway's *commanding officer, Captain Thomas Brown III.*

appointment to the Naval Academy. Mark's father, Commander Cecil D. Harper, is a Navy chaplain.

The Officers Wives' Club Thrift Shop awarded $1,000 scholarships to four graduates: Barbara Blair, Karen Jackson, Robert Schaeffer and Eugene Yamamoto.

At the request of the graduating seniors, Marshall Roper, a Navy civilian employee, presented the diplomas. His son Edward was the fifth Roper child to graduate from Kinnick.

After the ceremony, the graduates and guests attended a reception on the rear hangar deck. Because there seemed to be no precedent for shipboard graduation receptions, Navy tradition took over when CAPT Brown cut the first piece of the huge graduation cake.

On the training carrier *Lexington* at Pensacola, Fla., on June 5, more than 3,000 family members and friends witnessed the flight deck graduation of 401 Pensacola High School seniors.

Captain Eugene B. McDaniel, Commanding Officer and father of graduating senior David McDaniel, delivered the commencement address. A prisoner of war in North Vietnam for six years, CAPT McDaniel drew on his experiences to tell the seniors how fortunate they are to have graduated as citizens of the "most free, fairest country on earth."

Speaking of his life as a prisoner, CAPT McDaniel said that an enemy "can take everything from you except what is ingrained in your hearts and minds."

Another high school graduation ceremony in which the Navy had a big part took place on Ulithi Island in the Yap District of the Trust Territory of the Pacific Islands (TTPI). There, 34 young adults, in traditional ceremonial dress, celebrated their graduation from the Outer Islands High School with native song and dance, formal speechmaking, and the receiving of gifts.

Rear Admiral David S. Cruden, Commander, U.S. Naval Forces Marianas, as commencement speaker, witnessed the ceremony along with members of his staff and the COMNAVMARIANAS Band.

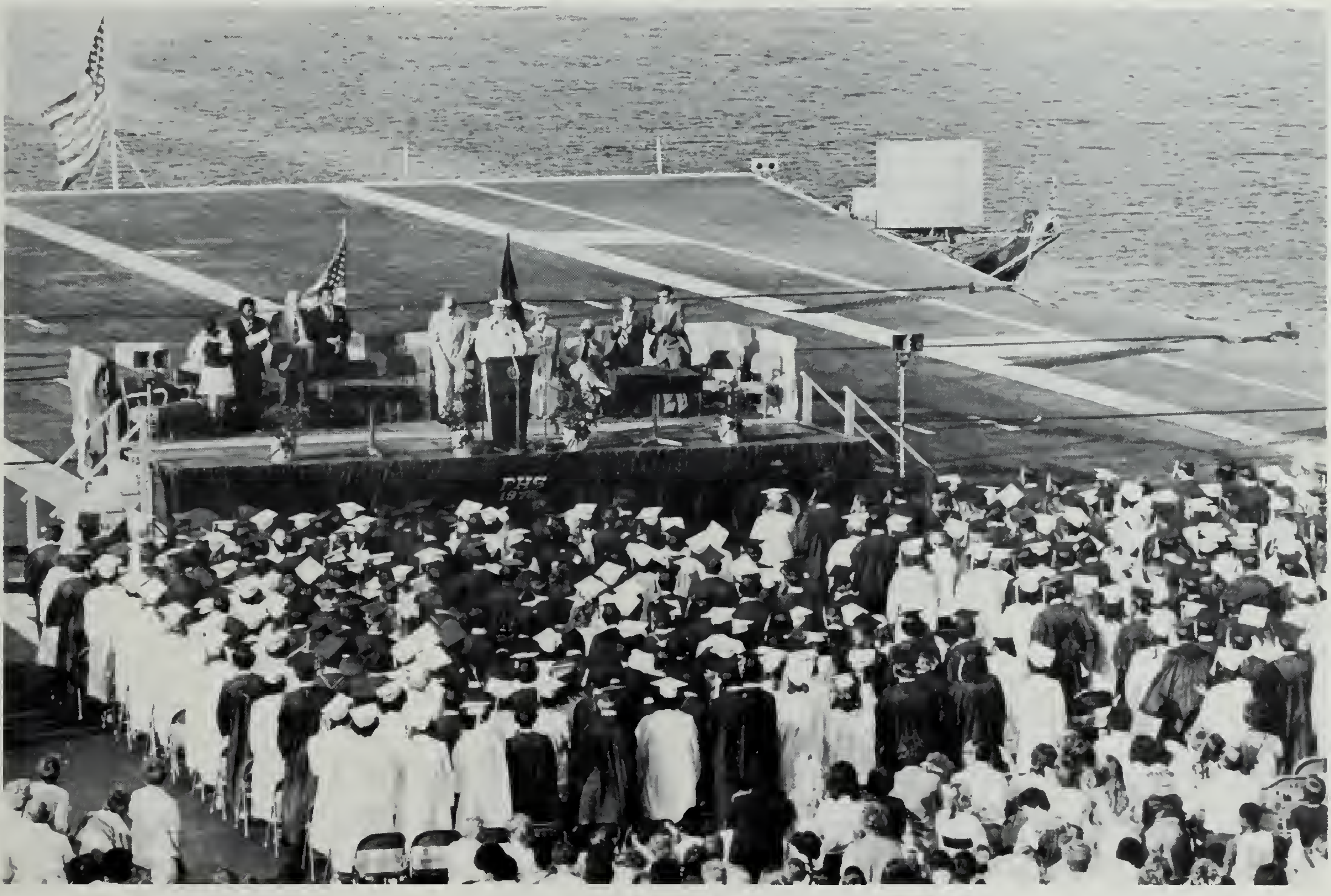
The Outer Islands High School is a boarding school serving students from the islands in the Ulithi Atoll and throughout the Yap district. Local islanders, U.S. teachers on contract to the TTPI and Peace Corps volunteers make up the faculty.

Except for courses on island culture, the curriculum is similar to that of U.S. high schools. Students participate in most of the same sports as other high school students but they also have the option of spending free time in local activities such as spear fishing.

Much like the graduating seniors aboard *Midway* and *Lexington*, the Outer Islands High School graduates face the challenge of a future which, as CAPT McDaniel said, is "for your generation to mold."

(Photos by LT H. A. Hilton, JO1 Gary L. Martin and Art Giberson.)

Left: Graduation ceremony on Ulithi Island. Right and below: Captain Eugene B. McDaniel, commanding officer of the USS Lexington, *addresses the Pensacola High School graduates.*



Getting the Best Out of Everyone

BY JO1 JERRY ATCHISON

USS Carrier *had just returned from a grueling, eight-month WestPac deployment. Her tired crew were eagerly looking forward to the 30-day stand-down period which traditionally follows an extended deployment.*

But after only three days in port, the Weapons Department got an unpleasant surprise. They were going right back on a 12-hour-day work schedule because the ship was headed for the yard.

The groans grew louder when they learned they would have to chip and paint their assigned spaces without the benefit of air conditioning because it, too, was being prepared for rework.

The unexpected work under bad conditions soon had people griping. Although the chief told them they'd get liberty as soon as the job was done, these hopes were dashed when the department head assigned still more tasks.

After about a week of this heavy work schedule, and with no end in sight, discipline began to break down.

A few sailors reported for work drunk, others started going to sick call every morning and those on the job started taking longer and longer smoke breaks.

By Friday, the Weapons Department UA rate had skyrocketed to 30 percent. Things were looking bleaker and bleaker . . .

* * *

If you were in charge of our mythical Weapons Department, what would you do? How would you get the job done, lower the UA rate and get your sailors to tackle a difficult job with as much effort as possible?

If your answer ranges from "nothing" to "put them on report," you're wrong. Some people think there is no way even a good leader could solve the problems of USS *Carrier's* Weapons Department. They too are wrong.

One group of junior petty officers, however, have learned effective solutions for what they now believe is an elementary problem in leadership and management.

They are neither super sailors nor super leaders. They are simply 19, randomly selected, second and third class petty officers who recently graduated from a newly developed pilot program called Leadership and Management Education and Training (LMET). They are among the first Navy people to attend a course designed to teach every person in the Navy the techniques and skills used by superior leaders and managers.

These recent graduates of LMET training conducted at Amphibious School, Naval Amphibious Base, Coronado, Calif., say they learned some surprising things about themselves, their leaders and the people with whom they work.

For some, the biggest surprise was also the reason for the course's development: leadership skills can be learned. The myth of "Leaders are born and not made" has been tossed out.

Before finding out what these sailors learned and how they did so, we have to look at why the Navy decided a program like LMET was required.

A few years ago, fleet commanders reported their disappointment with the level of leadership ability demonstrated by some of their people. In recent years, a number of incidents have driven home the Navy's need for more effective leaders and managers. Personnel problems—like rising desertion and attrition rates—have, in many cases, been linked to poor leadership. The number and experience levels of supervisors have dropped as the Navy has grown smaller. More sophisticated equipment and a tight budget have also worked to cut the time previously used to train the Navy's future leaders.

During a recent interview with ALL HANDS magazine, Commander D. P. French, BuPers LMET Project Director, emphasized the Navy's need for more and better trained leaders.

"In the smaller Navy of today, we can't afford to have people doing only part of their jobs. We must have the best level of effectiveness we can get out of everyone. . . ." (See "Leaders can be made," May 1978 ALL HANDS.)

Besides teaching effective skills, LMET has also been designed to eliminate the major barrier faced by past leadership courses. That barrier is to relate the theory of the classroom to the real-world leadership and management problems found on the job. After all, learning the theory is no good if you can't put it to work.

To accomplish this, the course at Coronado departed from past Navy leadership courses. It also employed a variety of novel techniques to ensure each student returned to his command ready to demonstrate—and not just talk about—effective leadership and management skills.

Training is based upon learning leadership competencies—skills used by all the Navy's effective leaders and managers and proven to be successful at all levels in the chain of command and with all types of Navy units.

LMET students began by examining each of five leadership areas: a leader's concern for efficiency and effectiveness, the skillful use of influence, advising and counseling, problem solving, and process management.

The course aroused even the most

Left: LMET pilot course for petty officers conducted at NAB, Coronado, Calif. Right: AO1 Braxton is one of three Navy "facilitators" at the LMET course.

complacent student's interest because of a variety of instructional techniques not often found in a school setting. To begin, no lecturer stood at a lectern and read from notes to a group of furiously scribbling students. And the only tests were those that individuals gave themselves to test their own leadership strengths and weaknesses.

Instead, aided by a classroom facilitator, the students learned by talking of their leadership experiences—good and bad—among themselves and with the LMET staff.

With the facilitator's help and using their own experiences, students soon were able to identify the leadership skills that applied to the area under study. They then were able to take problems posed by the staff and practice resolving them in situations closely resembling those they might find at their parent units.

As they worked on classroom exercises, they learned not from a text or a lecturer, but from each other. The results of their work sometimes pleased them, and always provided food for thought.

So when the LMET students got to the block of exercises on problem solving, for example, they learned that one of the skills they must have is the ability to identify the different causes of job-related or personal problems.

"During class I was feeling pretty smug," said one student. "I knew this problem we recently had aboard ship was being handled the wrong way. And some of what I learned today told me my feelings were right.

"But then I learned I had done things—without realizing—that only contributed to the problem. I could have done other things that would have helped solve it.

"You don't feel so smug when you realize you have leadership deficiencies just like the next guy."

Another student, surprised to learn about one aspect of leadership and management said, "I thought things that happened on my submarine didn't happen anywhere else. But some of these guys assigned to ships or with aviation squadrons have shown me we all have the same situations to deal with. It's just that the language is sometimes different."

A second class petty officer explained his initial skepticism about a course intent upon making better leaders out of everyone.

"The shop I run has always been known for getting the job done and my bosses give me credit as a good leader because of that. So I figured I'd come here and they'd try to teach me to do things in a manner that rubs me the wrong way.

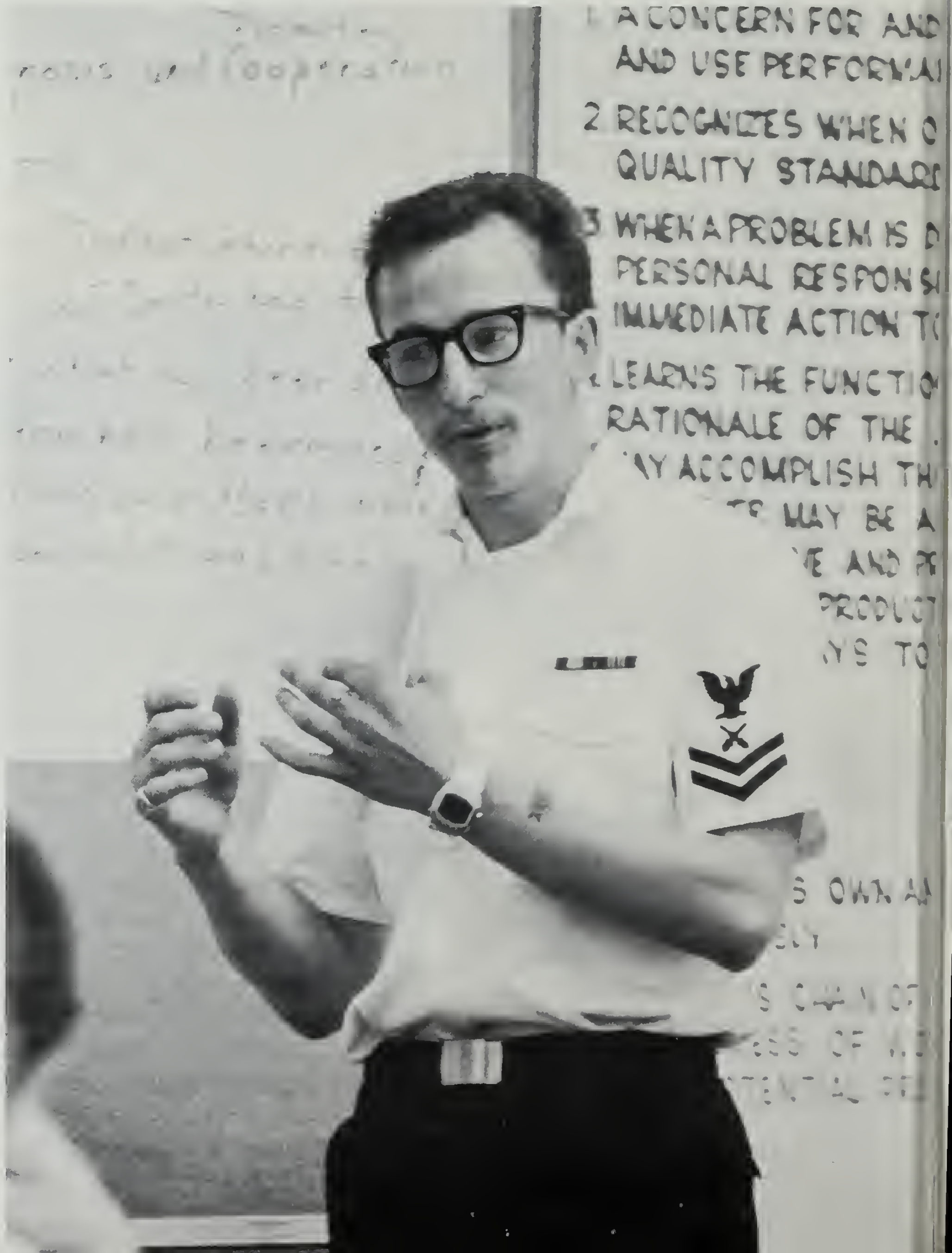
"Instead, I've learned exactly what it is I've been doing right, what other things I can do to make the job go even better, and different approaches to try if I don't succeed the first time.

"The important thing is I can take these competencies and tailor them to my particular style instead of the other way around."

Students also learned leadership skills are not solely for leaders but of equal importance to those being led.

"I was really puzzled when I got here," a third class petty officer said. "Since I'm low man on the totem pole in my shop, there's no one for me to lead. So why send me to leadership school?

"Then, when I really got into LMET, I discovered good leadership is important to everyone in a command. For instance, I'll leave here knowing I can solve problems instead



GMT2 James Plansky explains his study group's approach to solving leadership problems.

of automatically passing them up the line. I can talk to my bosses about getting the job done the best way possible.

"My bosses, in turn, will be better at their jobs because someone like me—a person who understands some of their responsibilities and problems—will be working for them. As a result, I'm also leaving here knowing I'm a more important member of our shop than I previously thought."

But will these students—and the LMET students of the future—really be able to bridge that barrier between theory and on-the-job reality? An Aviation Ordnanceman voiced the consensus of the class.

"A couple of years ago, I worked for a chief who returned from some leadership course and really did nothing more than talk a good game. As far as any of us could see, his leadership techniques didn't get any better or worse.

"When I get back to work, I know I'll be looked at the same way. Sure, I can 'talk a good game' now, but the only thing people will accept is my demonstrating I am a better leader than before. I know there are things—basic things—I can do that should convince people I'm a better leader and that this course is worth it. After all, you've got to show people that it works before they'll buy it."

Toward the end of the course, the competencies in each of the five areas were all brought together. Students learned how leadership skills work not only independently but in unison as well. They also had fun demonstrating these skills by solving the problems of an air squadron many had encountered before.

The air squadron is the focal point of a motion picture that still pops up on the late night movies. And, boy, do they have problems. Crewmen work around-the-clock battling the enemy or trying to keep the planes flying despite shortages of parts or personnel. Everyone seems to have at least one personal problem. The principal characters are burdened with more than most could bear. On top of this, poor or nonexistent leadership is pushing the whole squadron right over the edge.

The LMET students didn't just *watch* the film, they dissected it. What leadership skills were used or should've been used during a given scene? What did leaders do right? How could they have done it better? Were there other methods they could have used with success?

The students tested each of their newly learned leadership and management competencies on every relevant scene in the movie. During the animated discussions that followed, the previously mentioned sailor who is "low man on the totem pole" explained not only what the squadron's crew could have done better, but pointed out how some of their leaders could have stifled problems before they developed.

These 19 LMET students have become some of the first people to experience a training program that will someday be given to everyone in the Navy—including Naval Reserve Forces and civilian employees.

Presently, courses for officers and enlisteds destined for sea duty are in various stages of development. Making LMET part of technical training—such as is being done at the Boiler Technician's School in Great Lakes—is also being worked out.

As LMET becomes a reality, existing leadership courses such as Leadership and Management Training (LMT) will be phased out.

LMET doesn't have all the solutions to the challenges of today's Navy. But better led and managed people, more skilled leaders and a whole lot of hard work can go a long way toward finding those solutions.

Indeed, LMET may have already demonstrated it's headed in the right direction.

"I've been in the Navy three years," a third class LMET graduate said. "But this is the first time I've seriously thought about staying in and making it a career. LMET has shown me leadership is not 'pie in the sky' but a challenge if you know what you're doing and how you'll do it.

"I think I know . . . and I'm going to give it a try." ⚓

TM2 Gary Lovin enjoys the LMET approach to leadership training.

Mail Buoy

VP–22's Orion

SIR: In your article in March 1978 ALL HANDS about VP 6 squadron receiving their new model of P–3B *Orion* aircraft, one gets the impression that the plane in the picture is one of VP 6's planes, but it is not. It is from VP–22. It should have been stated in the article that the plane in the photograph is a VP–22 plane.—SK3 Deborah S. Gierhart.

Ending Harassment

SIR: Major Fishback's article, "Rights & Benefits—Putting an end to harassment" (pg. 12 of the April ALL HANDS), suffers from at least one significant omission as well as an outright error.

By omitting any definition of bill (or debt) collectors, the article can easily mislead a reader into thinking that the law applies to *creditors* (the person or organization to whom the debt is owed). Navy Federal Credit Union's recent experience shows that many Navy and Marine Corps personnel think this law gives them the right to evade valid financial obligations merely by telling a creditor, in writing, that they refuse to pay or wish not to be contacted further.

In fact the law does *not* apply to creditors, but only to persons or organizations whose primary business is collecting debts for someone else.

One reason that responsible creditors like Navy Federal Credit Union were not made subject to this law is because they have long followed most of the rules set forth in the Fair Debt Collection Practices Act. They have done so, because, as the name of the law implies, these rules are *fair*. But they are *not* required to do so under the law. Creditors may still make every reasonable attempt to collect money owed them, including communicating with a person's commanding officer.

DOD Directive 1344.9, "Indebtedness of Military Personnel," sets forth standards of fairness and permits contact with a debtor's commanding officer by a creditor after bona fide attempts to contact the debtor directly have failed and if the creditor certifies compliance with the DOD Directive.

And even bill collectors are not restricted to the hours between 0900 and 2000 as stated in the article—the law allows an extra hour on either end, from 0800 to 2100.—Leonard J. Simon, Chairman, NFCU Credit Committee

First Replenishment

SIR: In JO2 Dan Wheeler's "For the Navy Buff" in your April issue, he states the first underway replenishment of a U.S. Navy ship took place off Tripoli in 1804. By that time, the Navy already had gained considerable experience in that evolution through the long-term sustenance of our ships deployed to the West Indies during the Quasi-War with France (1798–1801).

A scan of the "Quasi-War Documents" series of six volumes, published by the Government Printing Office in the 1930s, indicates the earliest deploying units either supported themselves with local purchases or returned home before their stores were exhausted. But by the spring of 1799, naval stores sites (under naval agents) were being established in the theater of operations and merchantmen were being hired to haul the freight from the U.S.

I don't know when the *first* instance of underway replenishment occurred, but I do know that at 10 a.m. on Dec. 30, 1799, the chartered schooner *Elizabeth* (Captain Thomas Hughes) rendezvoused with *Constitution*, for just that purpose. The frigate took her supplier in tow to keep her close as her boats plied back and forth with the stores. In 24 hours, 260 barrels of bread, 75 each of beef and pork, 15 of "Indian meal," 10 of flour, 30 of potatoes, and eight of cheese, as well as four tierces [a tierce is a cask of 42-gallon capacity] of rice and one of "pease," another small cask of "pease" and six kegs of butter were transferred. All told, over 50 tons of supplies were hoisted out of the schooner into boats, rowed to the larger ship, hoisted out of the boats and stowed below. No one had trouble sleeping when the job was done!

Notice that no spirits were included in the deliveries. Believe it or not, eight days later, *Constitution ran out of rum* with the issuance of a half-ration to the crew! Captain Silas Talbot *borrowed* 30 gallons the next day from squadron mate *Boston* so that his men not be denied this vital element of their diet. On Jan. 13, 1800, *General Greene* arrived from Cap Francais, Haiti, with several hundred gallons of brandy, rum, and gin to relieve the pinch.—CDR Tyrone G. Martin, USN (Ret).

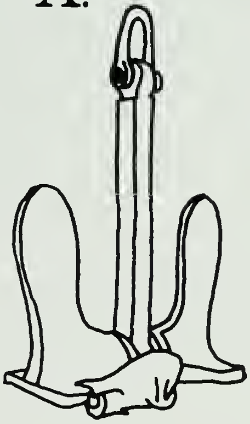
Reunions

- USS *Thornhill* (DE 195)—Reunion Sept. 22-24, 1978, in Stroudsburg, Pa. Contact Joe Cannavo, 28 Spring St., Winsted, Conn. 06098.
- *Lake Mead Base* —Reunion Oct. 14, 1978, in conjunction with Navy Birthday Ball. Contact James Doloway, 3897 San Andres Ave., Las Vegas, Nev. 89121.
- USS *Yorktown* (CV 10) Assn.—Reunion Oct. 6-8, 1978, in Charleston, S.C. Contact James T. Bryan Jr., Frank B. Hall & Co. of N.Y., Inc., 88 Pine St., New York, N.Y. 10005.
- USS *Gregory* (APD 3)—Reunion proposed for survivors of *Gregory*, which was sunk off Guadalcanal on Sept. 5, 1942. Contact Randall C. Coleman, 1600 Maryland National Bank Bldg., Baltimore, Md. 21202.
- USS *Saratoga* (CV 3)—Reunion Sept. 8-9, 1978, at San Diego, Calif. for all former Navy and Marine Corps shipmates of ship's company or air groups and CV 60 shipmates. Contact P. R. Tonelli, 6382 Cantiles Ave., Cypress, Calif. 90630.
- USS *Miami* (CL 89)—Reunion May 25-27, 1979, at Virginia Beach, Va. Contact S. C. Richardson, USS *Miami* Reunion Committee, 5507 Limeric Circle, Apt. 46, Wimington, Del. 19808.
- USS *James E. Craig* (DE 201)—Reunion in Schenectady, N.Y., on Labor Day weekend 1978. Contact Ray Iafrate, 1310 Lark St., Schenectady, N.Y. 12306.
- USS *Natoma Bay* (CVE 62)—Reunion Oct. 20–22 in New Orleans. Contact Bob Wall, 141 Boynton Blvd., Apt. 6, Daytona Beach, Fla. 32018.
- USS *St. Louis* (CL 49)—Reunion planned in mid-1979 to celebrate 40th aniversary of commissioning. Contact Al Seton, 220 Otis Ave., Staten Island, N.Y. 10306.
- USS *Hugh W. Hadley* (DD 774)—Reunion on Nov. 3–5 in Ft. Lauderdale, Fla. Contact Hunter S. Robbins Jr., P.O. Box 2035, San Leandro, Calif. 94577.

Stern Shots

As Navy men, you know that all ships have an anchor. But did you know there are a wide variety of anchors in use in the Navy today, each with its own unique holding power? How many of these iron weights can you name correctly ?

A.



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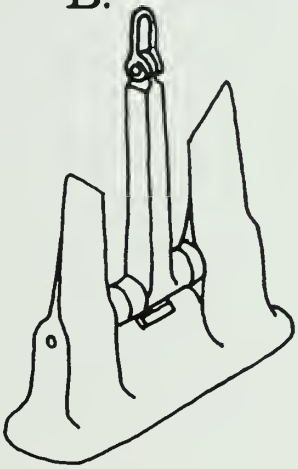

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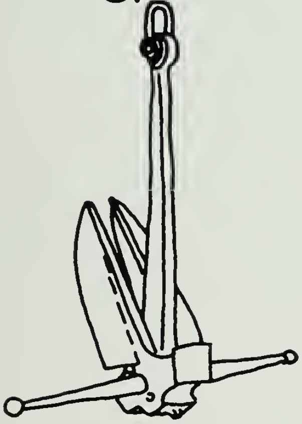

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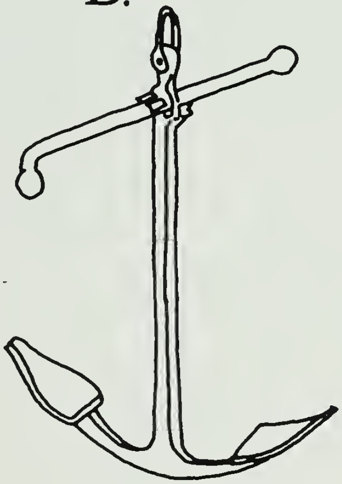

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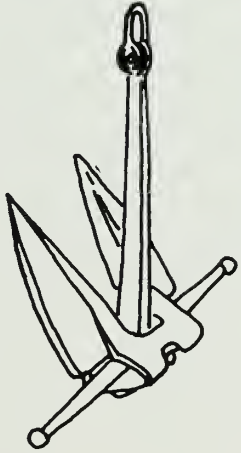

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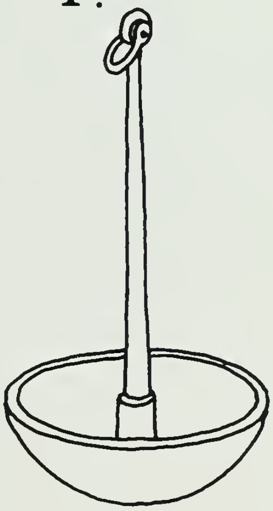

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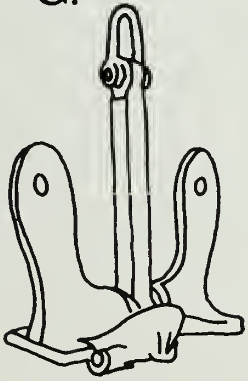

Answers: A — Mark 2 stockless; B — Two-fluke balanced fluke; C — Mark 2 lightweight; D — Navy type stock; E — Danforth; F — Mushroom; G — Standard Navy stockless.

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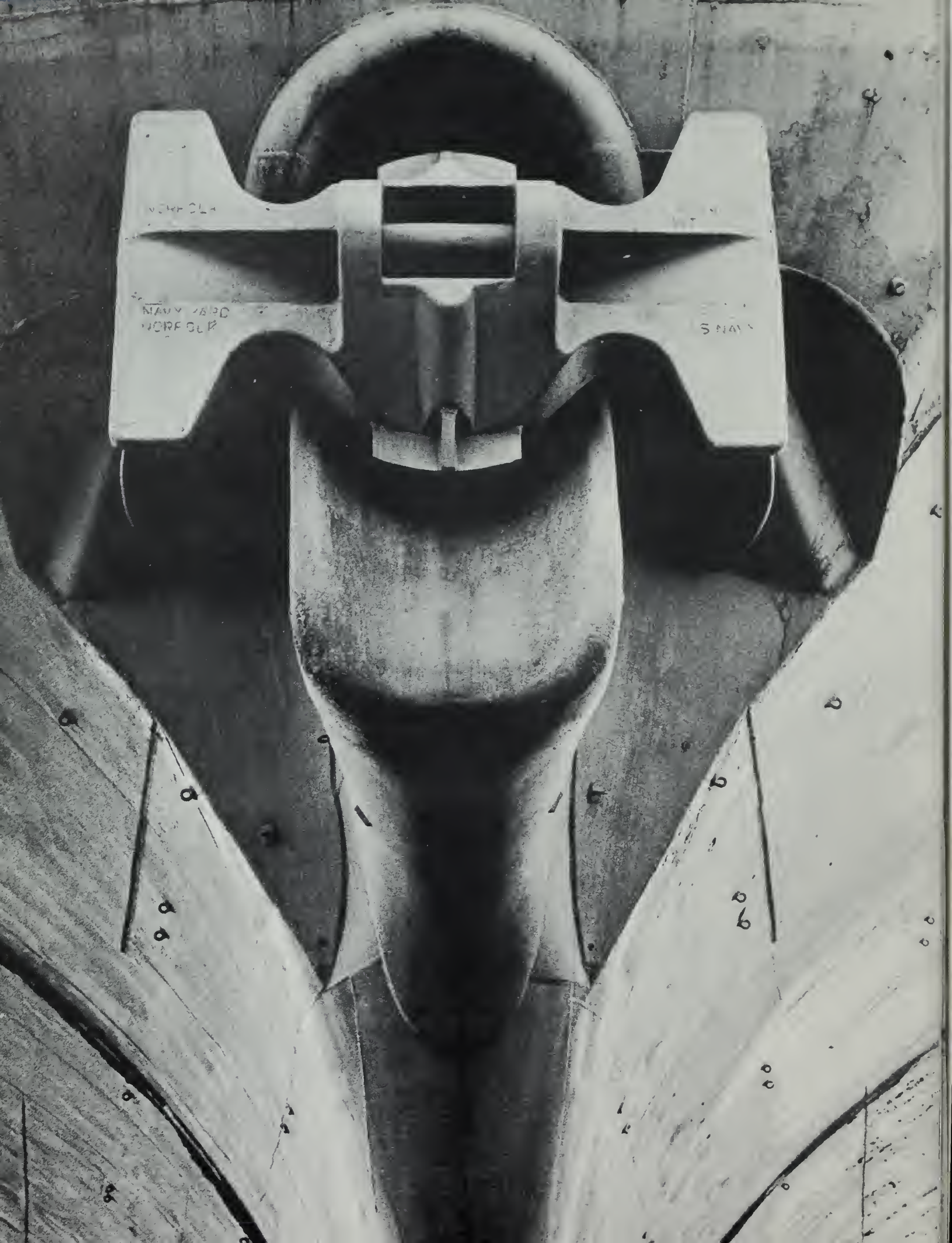
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Back: Petty Officer Phil Valdez is one of the Navy men remembered during Hispanic Heritage Week. See page 4.

At left: An unusual view of an anchor belonging to the decommissioned carrier Intrepid in Philadelphia, by PH1 Terry C. Mitchell.

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Currents

CPO Advancement Authorizations Released ● More than 1,200 selectees to chief petty officer will be advanced to CPO in September and 2,263 more from October 1978 through February 1979. Advancements will be shared equally among all ratings and will become effective on the 16th of the month shown. September 1978, 1,216; October 1978, 533; November 1978, 380; December 1978, 434; January 1979, 460; February 1979, 456. Totals include active duty regulars and reservists, training and administering reserves (TARs), convasser/recruiters and personnel temporarily recalled to active duty.

Navy Astronomer Discovers Moon Around Planet Pluto ● Pluto, the planet most distant from the sun and 2.8 billion miles from the earth, has a small moon. The discovery was made recently by an astronomer of the U.S. Naval Observatory. Tentatively named Charon, the moon was discovered by astronomer James W. Christy while examining photographs of Pluto taken earlier this year at the observatory's Flagstaff Station in Arizona. The moon, only 520 miles in diameter, is in an orbit approximately 10,000 miles from the planet. Discovery of the satellite helped establish the diameter of Pluto itself, which is now believed to be 1,300 miles, considerably smaller than earlier estimates. This is the second time naval astronomers have discovered moons around planets in our solar system. More than 100 years ago, astronomers of the U.S. Naval Observatory reported the twin moons of Mars.

Thousands of Pap Smears Misclassified ● Women who may have had Pap smears at Air Force medical facilities between June and September 1977 should contact the facility immediately to determine if a reexamination is necessary. The Air Force discovered recently a portion of Pap smears taken at 94 Air Force facilities throughout the world may have been misclassified by an Air Force contractor. The Pap smear is recommended annually for most women to test for cancer of the cervix. Since it is recommended annually, many of the Air Force-tested women may have been reexamined already. Those who have not are advised to contact a doctor to determine if a reexamination is necessary. Since July 1, 1972, the Air Force has used the services of the contractor periodically. As an extra precaution, women who have had Pap smears between July 1, 1972, and May 1977 at Air Force facilities and have not had one other than at an Air Force installation since then should consult a doctor to determine if a reexamination is required. The Air Force will reexamine the 32,000 Pap smears interpreted between June and September 1977 and notify women concerned if follow-up action is necessary.

Some Navy Exchange Catalog Prices Up 10 Percent ● Prices for some items in the new Navy exchange mail order catalog now in distribution are up as much as 10 percent over the amount shown in the catalog. Due to the rapid devaluation of the dollar in relation to the Japanese yen, the price of Japanese merchandise increased by 10 percent since the 1979 catalog went into production. Items from Japan are identified by the letters "AJ." Catalog users are advised to include the extra 10 percent when determining the price of Japanese items. The 1979 mail order catalog became effective on Aug. 1. Personnel serving with U.S. forces stationed outside the continental U.S., except Hawaii, are eligible to use the catalog. Although most catalogs will be distributed through normal channels, copies are available by writing to: Navy Exchange Mail Order Catalog, FPO Seattle 98760.

E-5/6 Quality Control Review Board Completed ● While the majority of the Navy's approximately 144,000 first and second class petty officers have performed "superbly," according to BUPERS, 1,976 have been cited for failing to meet standards and will receive warnings, referrals, or discharges. The actions are the result of recommendations made by the Third Annual E-5/6 Petty Officer Quality Control Review Board. Letters of substandard service will be sent to 1,596 of the petty officers with the others being referred to the Weight Control Program, the Alcohol Review Board or the Equal Opportunity Division. Some were reduced in rate, administratively discharged or invited to the Fleet Reserve. Individuals concerned will be notified via their commanding officers. Substandard performers will require BUPERS' approval to reenlist or extend. The Petty Officer Quality Control Review Board was established to maintain the high quality standards of Navy petty officers and to "weed out" poor performers.

New High Cost Travel Areas Established ● Inflation is one reason the Department of Defense increased the maximum reimbursement rates July 24 for personnel sent to certain U.S. cities on temporary duty. At present, anyone travelling to a U.S. city on temporary duty may receive no more than $35 per diem. However, if the individual travels to a high cost area, reimbursement is on an actual expense basis. The maximum he can receive in a high cost area is $50 per day, although that figure varies with each city. To receive payment for actual expenses, personnel must keep lodging receipts and a list of other expenses and submit them to the disbursing officer with their claim. The list of cities considered high cost areas and their maximum allowable rates are available from the disbursing officer. The following are some of the cities with a high percentage of Navy temporary duty personnel and their new maximum allowable daily rates: Orlando and Jacksonville, Fla., $40; Norfolk and Virginia Beach, Va., $41; San Diego, Calif., and Seattle, Wash., $43; Portland, Ore., $45; and Oakland and Long Beach, Calif., $50. Joint Travel Regulations, volume one, contains additional information.

Hispanic Culture in Today's Navy

The names of Hispanics are woven into the fabric of American history. Proud names such as Isabella, DeSoto, Cortez, Pizarro, Bolivar, Juarez, Montoya, and Chavez stand as monuments to the ideals of freedom.

Adventurers, explorers, men and women of vision, Hispanics played a powerful role in the discovery, development and destiny of the North and South American continents and the United States. Their story is the story of America.

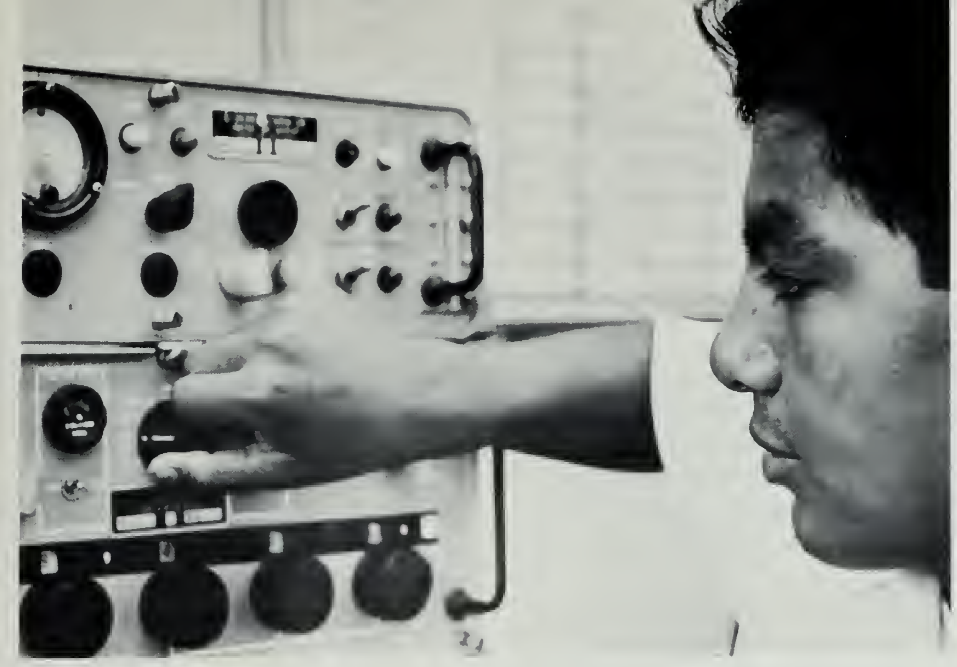
Today, Hispanics with backgrounds rooted in the cultures of Spain, Mexico, Central and South America, and the Caribbean, are an integral part of the mainstream of American life. They take their place equally with the many other ethnic groups who collectively and individually call themselves Americans.

In the U.S. Navy, the names are Trinidad, Orlando, Vallejo, Valdez. They are also Muniz, Alvarez, Aguilar and Betancourt. They are a reminder that the Navy, as a microcosm of the American population, reflects the diverse background of the American people.

Today, there are 13,606 (395 women) enlisted members and 387 (35 women) commissioned officers who trace their ancestry back to the Hispanic nations. These figures are short of the Navy's goals but progress is being made. At the Naval Academy, for example, 136 Hispanics are enrolled as midshipmen. This is a significant increase since 1973 when there were only 10 Hispanic midshipmen at the Naval Academy. Eighteen members of this year's graduating class are Hispanics; nine of them were commissioned in the Marine Corps.

In July 1976, the Navy set an overall annual enlisted recruiting goal of 5.3 percent for Hispanic men and women, a figure representative of the national distribution of Hispanics. In fiscal year 1977, 3,407 Hispanics were recruited for 3.4 percent of total recruits. The recruiting figure for Hispanics during the first half of fiscal year 1978 (to March 1978) has remained at 3.0 percent or slightly below the previous year's figure.

Navy people of Hispanic descent share other common characteristics besides their heritage. They correctly feel that mastery of the English language and mastery of the job at hand are extremely important to their success in



Left: Hispanics like RMSN Gabriel Muniz are fulfilling personal goals in the Navy today. Below: Hispanics of the past are remembered for their contributions also. Witness the submarine named for a Hispanic soldier-statesman who helped liberate six Latin American countries: USS Simon Bolivar *(SSBN 641).*

a Navy career. And it is apparent that all successful Hispanic officers and enlisted personnel share another characteristic: that of setting and achieving a personal goal, no matter what the odds.

Even a young sailor like Radioman Seaman Gabriel Muniz—now aboard the USS *La Salle* (AGF 3), flagship of the Commander Middle East Force—saw the need for a goal when he attended Radioman School in San Diego following recruit training. He wanted to take advantage of the Navy's educational and travel opportunities.

The Los Angeles native said, "What I was doing didn't really give me a future, but now I have a good one. . . . I'd never have the chance to leave the States and now I'm going somewhere."

Muniz admits that he was scared when he first reported to Radioman School—all those machines looked like too much to master. But he soon discovered that he had friends at the school who were willing to push him in the right direction whenever he had a tendency to back off. He underscored the need to study and went after the books harder than he remembers doing in L.A.'s Benjamin Franklin High School.

Small success, one might say, but Muniz has achieved some of the goals he set for himself on his 17th birthday when he reported to the Naval Training Center, San Diego.

Back in 1963, a young woman in Havana, Cuba—already an established pediatrician—set two goals for herself: Dr. Rosa Alvarez wanted to live in the United States but she knew she would have to perfect her grade school English first. For eight long years she held on to her dream, studying English all the time, until she finally made it to the States in 1971.

She successfully completed the written test required for all foreign-trained physicians and went on to become board-qualified in pediatrics.

"I could have established my own practice," the doctor said, "but I felt I owed the U.S. more. This country has done so much for my family. I felt a need to repay America's kindness and hospitality.

"It seemed to me that the country needed doctors more in the military

Right: Navy doctor (LCDR) Rosa Alvarez could have set up a private practice in the U.S. after she fled communist Cuba. Instead, she joined the Navy because, "I felt I owed the U.S. more."

than in private practice, so I applied for a commission in the Navy and was accepted."

Today, Lieutenant Commander Rosa Alvarez (MC) brings an international touch to the Naval Regional Medical Clinic at Pearl Harbor, Hawaii.

The Navy recently changed some of its direction in aiming recruiting material at Hispanics. A couple of years ago the emphasis was on national Spanish language publications but the resulting recruiting figures were disappointing. Root of the problem, it was discovered, was in the geographic distribution of people of Hispanic origin in the nation. A national campaign was too broad.

Since then, the Navy has developed both radio and television commercials which are aired regionally over 115 radio stations and 60 TV stations. The regional approach has been found to be more cost-efficient; it reaches the Hispanic audience settled in distinct geographic regions.

One might think that to reach Hispanic people with a Navy message, it should be aimed at California, New York or Texas. Well, if you missed St. Louis, Mo., you wouldn't have enlisted Roberto Aguilar, now a gunner's mate (missiles) second class aboard the guided missile cruiser USS *Sterett* (CG 31) homeported at San Diego.

Aguilar was always interested in the hardware end of the Navy, so becoming a gunner's mate was part of his set goal.

"I wanted a job that wouldn't keep me locked in one position," he said. "I have personal ambitions. One is to advance up the ladder in my career.

"As a gunner's mate, I've been able to do just that. It's a great job . . . people notice your work and reward your effort.

"Not many other men my age can claim to have my special experience. The fact that it's a one-of-a-kind job makes me look forward to each new day."

Aguilar's sentiments would easily be understood by the weapons' boss of the guided missile destroyer USS *John S. McCain* (DDG 36), Lieutenant Jose L. Betancourt. Heading up four divisions made up of 120 officers and men,

Right: GMM2 Roberto Aguilar has a "one-of-a-kind job that makes me look forward to each new day" in the Navy.

Betancourt feels that the *McCain's* weapons systems are as reliable as any other Pacific Fleet destroyer.

A former high school teacher, Betancourt has seen an increasing emphasis on minority representation in the Navy since he joined in 1971. A graduate of Pan American University, Edinburg, Tex., he was commissioned in early 1972.

"I'm very proud to say I'm a Mexican-American and that I've achieved a fair degree of success," he said.

Like GMM2 Aguilar, he feels responsibility comes at an early age in the Navy. "I don't think anyone my age in a civilian community could receive as much responsibility and authority as the Navy has given me. Couple that with the fact that I'm an immigrant and there's no doubt that the Navy has tremendous opportunities for people who are willing to come in and use them."

The Navy considers getting good people and retaining highly qualified people to be a two-fold mission. As noted, a slight downward trend of Hispanic representation in the enlisted force has continued for the first six months of the 1978 fiscal year. Yet, it's not readily apparent why the Navy has not retained a higher percentage of Hispanics in the career force.

To find the answer, the Navy developed and mailed a questionnaire to 400 selected top performing Hispanics who had completed their first enlistment but then left the Navy during 1977. Of the responses received to date, the prevalent reason given for leaving the Navy was to seek a college education. Again, it would seem, personal goals are still being sought.

But the Navy has plans for all of its people—officer and enlisted alike—to become aware of each other's cultural and ethnic backgrounds and to reach whatever goals they have set. Some of this will be worked out through the Navy's new training tool, LMET (see August 1978 All Hands). Through this new and dynamic course, Leadership and Management Education and Training, the Navy hopes to give everyone the opportunity to improve performance and develop leadership skills.

This—along with continued emphasis on recruiting—should lead to better retention for all groups, including Hispanics. ⚓

Below: LT Jose L. Betancourt (left) says he's "very proud I'm a Mexican-American and that I've achieved a fair degree of success."

Bearings

Discovering Navy

A dozen Tidewater cadets recently discovered that the Navy at sea is nothing like an NJROTC classroom. Meshing with USS *Peterson's* (DD 969) crew, cadets from First Colonial High School, Virginia Beach, Va., learned some navigation techniques firsthand, heaved around on hawsers, manned sound-powered telephones, fired small arms, and generally lost themselves for two days in the underway routine of one of the Navy's newest destroyers.

"This is nothing like my father said it would be," said cadet Mike Swindell, obviously impressed by *Peterson's* modern living spaces and advanced weaponry.

Tim Howlin, another cadet, donned a ballcap belonging to a second class petty officer and stood a lookout watch with dedication. He, like the other young sailors, found that the Navy was much more than ships at sea. It's men working hard to keep them there.

Paired with enlisted crew members, students were introduced to the shipboard practices such as Navy showers and various safety procedures mandatory when underway. They visited the signal bridge and learned a smattering of semaphore and then headed below decks for some good Navy chow.

"The cruise on *Peterson* demonstrated to the students the role of the ship, the functions of each department and the many varied jobs available in the Navy today," said their instructor, John McCarron. The cruise was a refreshing change of pace for McCarron as well. He not only teaches cadets the basics of seamanship, naval

history and military drill, but also helps familiarize them with the role and mission of the Navy.

Commander S. Chadwick, *Peterson's* commanding officer, was impressed by the cadets' knowledge of general deck seamanship and felt the response of his crew to the visitors was favorable. "*Peterson* is a ship of today," CDR Chadwick said. "Should any of these young people decide to join the Navy, this could be the type of ship aboard which they will go to sea."

After two days of on-the-job training in the real Navy, 12 of First Colonial High School's 100 cadets can now speak with an authority born of having been there about the rigors and rewards of Navy life.

—PH2 David L. Longstreath

Ready Response

While taking a break during a recruiting conference at a San Diego hotel, three Naval Reservists— Sonar Technician First Class Worden Hodge, Senior Chief Boatswain's Mate Bill Ross and Hull Technician First Class Mike Jasper— found themselves with an emergency on their hands.

A man who had apparently suffered a heart attack was being pulled from the hotel pool. The three recruiters— all of whom are certified to administer cardio-pulmonary-resuscitation (CPR)— rushed to his aid. The man showed no signs of life when they began to revive him, using CPR techniques they had mastered.

Taking turns, Warden, Hodge and Jasper kept the man alive until paramedics from a local fire department arrived and took the victim to a hospital. He later recovered and has since been released.

For cool-headed performance, each of the recruiters was awarded a Navy Achievement Medal. Rear Admiral Robert M. Garrick, special assistant to the Chief of Naval Reserve, presented the medals.*—YN1 J. L. Dorman, USNR*

L–r: Sonar Technician First Class Worden Hodge, Senior Chief Boatswain's Mate Bill Ross and Hull Technician First Class Mike Jasper earned the Navy Achievement Medal when they used CPR techniques to save the life of a drowning victim last September.

Bearings

Focus on Training

There are training programs in the Navy, and then there are TRAINING PROGRAMS. Word recently reached us that neighboring Naval Photographic Center, Washington, D.C., definitely enjoys the all-capitalized version of a Navy training program.

A quick check of the statistics shows why: during the recent Navy-wide examination for advancement in rate, more than one-third of the sailors assigned to NPC participated. Each of those 31 sailors passed the exam and 25 were authorized advancement in rate.

So it's no wonder that when sailors at NPC speak of their TRAINING PROGRAM, the emphasis in their voices dictates it be written in all capital letters.

According to NPC's skipper, Captain Robert L. Skillen, training at NPC worked well simply because the participants wanted it to work. "It began as a bootstrap effort a year and a half ago. People recognized they were going to need more training after Class A school if they expected to advance."

Capt. Skillen also gave credit to NPC's highly trained technicians, the command career counselor and others who all sang the same song: "Without

Below: Nineteen of the 25 NPC sailors authorized advancement in rate are shown with their promotion certificates.

continuing training, you're not going to make rate."

So a voluntary training program was set up at NPC. First, a training board staffed by representatives from each department mapped out a structured program to include one lecture each week usually held over the lunch hour. The training board identified certain concepts of the photographer's mate rate that apply across paygrades. These became the basis for the lectures. In turn, they either served to introduce material to the junior people or provided an excellent review for the senior petty officers also going up for rate.

The command also made laboratories and offices available after working hours so students could work on their training assignments.

Before any training could be undertaken at NPC, however, some barriers had to be overcome. The main obstacle has also been heard at other commands justifying their non-existent or unsuccessful training programs: not enough time.

In finding the time for training, NPC people quickly learned that an effective training program also means much more than people passing advancement exams. CAPT Skillen explained:

"People knew if they wanted more time for training that time would have to be made available through better on-the-job management." Better management, then, became everyone's responsibility. And with everyone pitching in, things ran smoother and the time for training was found.

"There were other benefits from our training program," he said. "The program's success has boosted personal pride and, in many instances, stimulated curiosity toward learning more about their rating."

So the people at Naval Photographic Center have learned that successful training programs reap benefits far beyond a few extra dollars in the paycheck and an extra stripe on the sleeve. No wonder you're likely to hear NPC sailors call it their "TRAINING PROGRAM."

—Photo by LCDR Toby Marquez

Navy Graduates

Five Navy officers were among the 252 graduating members of the U. S. Army War College's Class of 1978. Here, Commander Joseph E. Boland (right) accepts his diploma from Major General Robert G. Yerks, commandant, during the ceremony at Carlisle Barracks, Pa. CDR Boland is now assigned as engineering officer aboard USS *Independence* (CV 62). The other Navy graduates were Captain James M. Hickerson, Pacific Missile Test Center, Pt. Mugu, Calif.; and Commanders Charles D. Hawkins Jr., Navy Recruiting Command, Washington, D. C.; Thomas W. Glickman, Staff, Commander Naval Surface Force U. S. Atlantic Fleet, Norfolk, Va., and Walter V. Roeser, Naval Recruiting District, Cleveland, Ohio.

"FIRE, FIRE, FIRE..."

BY JO1 JERRY ATCHISON

Seasoned sailors know fire at sea is a very real—and deadly—possibility. It's not a question of *if* the alarm will sound. It's a question of when the crew of any Navy ship will hear: "FIRE. FIRE. Class Bravo fire in compartment . . . ."

Now you just don't walk away from a fire at sea. There's no place to hide. So you turn, face the fire and put it out before it ignites the thousands of gallons of fuel in the ship's tanks or before it cooks off the ammo aboard.

You turn and fight the fire to save your life and the lives of your shipmates.

That's why the Navy has consistently been a leader in developing better and more efficient methods of firefighting. That, too, is why the 45 instructors at Fleet Training Center San Diego's Firefighting School each year show more than 56,000 students that if they don't learn . . . they're going to burn.

*****

Hull Technician First Class Peter Carter is a bull of a man with a voice that cuts through the roar of burning aviation fuel, through the deluge of thousands of gallons of spewing water, arresting the fears of 20 students facing their first massive Bravo fire.

When he shouts "MOVE IN," the students do just that—with precision. Billowing black smoke hampers breathing and blocks vision; bursts of flame reaching far in the air send wave after wave of searing heat over the student firefighters.

But urged on by Carter's booming voice, the students move in as a team, hoses swinging. They work first one way, then another, directing sprays of water or blankets of foam as they quickly put out the blaze.

With the fire out, students exchange surprised looks from grime-blackened faces.

"The instructors were right," their exhausted expressions seem to say. "We can handle any fire so long as we know what equipment to use and how to use it."

Instructors see those expressions every day and know that still another group of trained firefighters is ready to go back to the fleet.

During a break between fighting the nine different types of fires the students face during the two-day session, Carter explained the school's approach to firefighting training.

"It's easy for us to teach the students how different gear works. What's not so easy is teaching them to overcome their fear. They must leave here confident they can handle any kind of fire if they are going to be effective team members in the fleet. They build that confidence one way, by fighting fires."

The process of building confidence sometimes taxes both student and instructor. "I once had a Navy woman student," Carter said, "who balked at a hatch engulfed in flame. I stood right behind her and let go with my best roar.

"Without further hesitation she picked up a CO_2 extinguisher, knocked down the flames and entered the burning compartment. She then put out the rest of the fire just as she'd been taught."

Afterwards, Carter asked her why she had hesitated.

"I was terrified of that fire," she said. "But I was more afraid of you."

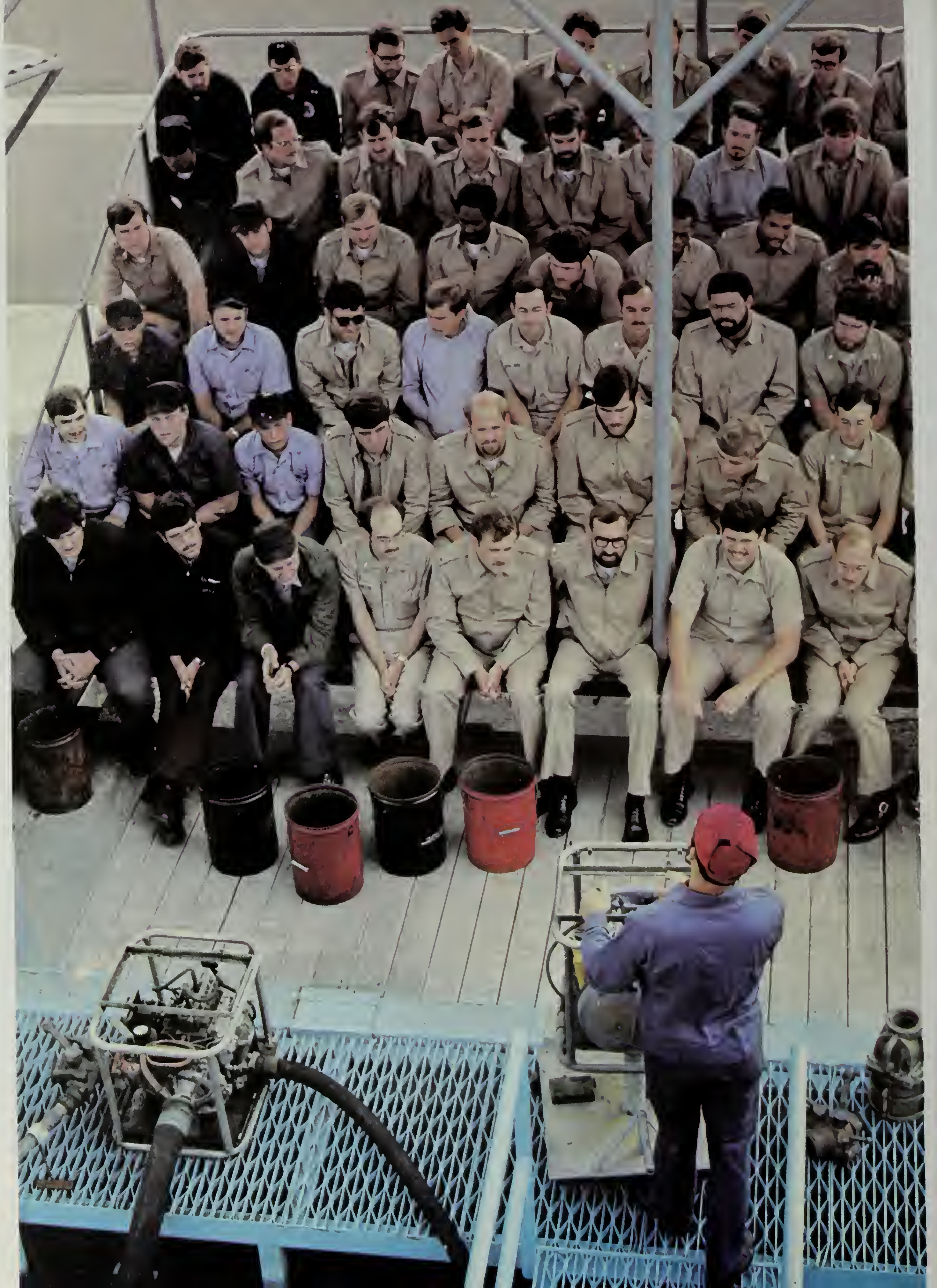
Instructors like Carter are seasoned professionals. The odds weigh heavily in favor of fire aboard Navy ships. Yet, the training offered by these professionals at firefighting schools like San Diego, Pearl Harbor, Treasure Island, Philadelphia and Norfolk effectively prepares shipboard personnel to combat such fires and avoid catastrophies at sea.

Students at San Diego range from seaman recruit to commander. They are Regular Navy and Naval Reservists, fleet sailors and aviators. The school also teaches sailors from foreign navies.

For many, it is their first exposure to Navy firefighting. For others, it is refresher training; a chance to hone previously learned skills or become acquainted with new firefighting equipment and techniques.

The firefighting courses have been standardized among the Navy's firefighting schools since the first of the year. This ensures students, no matter

Top: Firefighting students cool a hatch before entering a burning compartment. Left: Students extinguish a fuel oil fire in the school's "Astrodome." Above: Entering a burning compartment.



where they've been trained or where assigned, will speak the same "firefighting language" when the need arises.

Students fight a variety of fires and handle the full range of Navy firefighting equipment—oxygen breathing apparatus (OBA), different-sized hoses, various special-use nozzles and water pumps like the P–250. They learn the properties of different fires, what feeds them and what best puts them out.

Students also learn of the well-meaning but deadly firefighting mistakes of the past; mistakes like hose teams washing away protective coverings of foam with water, permitting fires to reignite; mistakes like the carelessly donned OBA that suffocates the wearer. They learn, too, that the amount of water required to put out a fire is heavy in weight. It's so heavy that, in theory, while you are success-

Opposite page: Students receive instruction on handling portable water pumps. Left: Fighting fires is a tiring and dirty business. Below: Hose teams move in on a blaze.

Left: The Firefighting School at Fleet Training Center, San Diego, Calif.

fully putting out a shipboard fire, you could be sinking the ship in the process.

The students also watch a film. In terms of the number of sailors who have seen it, it's the most popular movie in the Navy. The sleepy student wakes up and the unmotivated student is suddenly rarin' to go after viewing the film. Called "Trial by Fire," it shows the real thing through actual movie footage of fires which occurred on *Forrestal* and other ships. It shows why teamwork is the name of the game.

Out in the field, students don wet gear. With instructors and safety observers at their sides, they enter burning engine rooms, compartments and decks. When they leave, these spaces are no longer burning.

In what resembles the largest quonset hut in the world—dubbed "the astrodome"—aviation students battle hangar and flight deck fires, first knocking back the flames, then going into fuselages of helicopters or planes to rescue the "simulated" pilot.

All of this firefighting activity and more go on each weekday at Fleet Training Center San Diego's Firefighting School. It is activity with a men-and-equipment purpose. And it is, finally, activity highlighted by a whole fleet of people who've learned—they're sure not going to burn. ⚓

A 'CLEAN' FIRE ?

Ask anyone who's seen a fuel fire and they'll describe the massive clouds of thick black smoke that roll to the horizon.

Fleet Training Center San Diego's Firefighting School lights off a number of these kinds of fires each day— right in the middle of a city that bills itself as "the cleanest in America"—and the city environmentalists don't object.

The San Diego Firefighting School has taken a number of steps to keep the air clean and save the Navy money in the process while training sailors to fight fires. The school's director, Lieutenant Mike Eeckhout, told how.

"First, the smoke from all our fires goes through natural gas burners that remove the particulates and gases from the smoke. These smoke scrubbers have been in operation since the early '70s. They are slated to be replaced by an even better dry scrubber process now under development.

"Along with this, the San Diego County Pollution Authority works closely with us in monitoring our various pollution control efforts."

Some of these other pollution control projects are:

- Water used in fighting fires is pumped to separating tanks where fuel, oil and other contaminants are skimmed off before being pumped into sewage lines.
- In a never ending battle against waste, feasibility studies are being conducted to determine methods of water reclamation so this same water may be used over and over in fighting practice fires.

Besides pollution control, the firefighting school is also concerned about the large amounts of energy they use and what they can do to conserve it. LT Eeckhout described some of the steps they've taken.

"Restructuring our courses has permitted a one-third reduction in the amount of natural gas used in the smoke scrubbers.

"Also, part of our energy conservation plan is the use of only reclaimed or contaminated fuel for our fires. This is fuel that's of no use to the fleet but fits our needs fine," he said.

So right in the middle of "the cleanest city in America," sailors are learning how to deal effectively with one of the dirtiest jobs in the world—fighting shipboard fires. And both the Navy and San Diego are seeing the job gets done, thanks to the pollution control and energy conservation efforts at Fleet Training Center San Diego's Firefighting School.

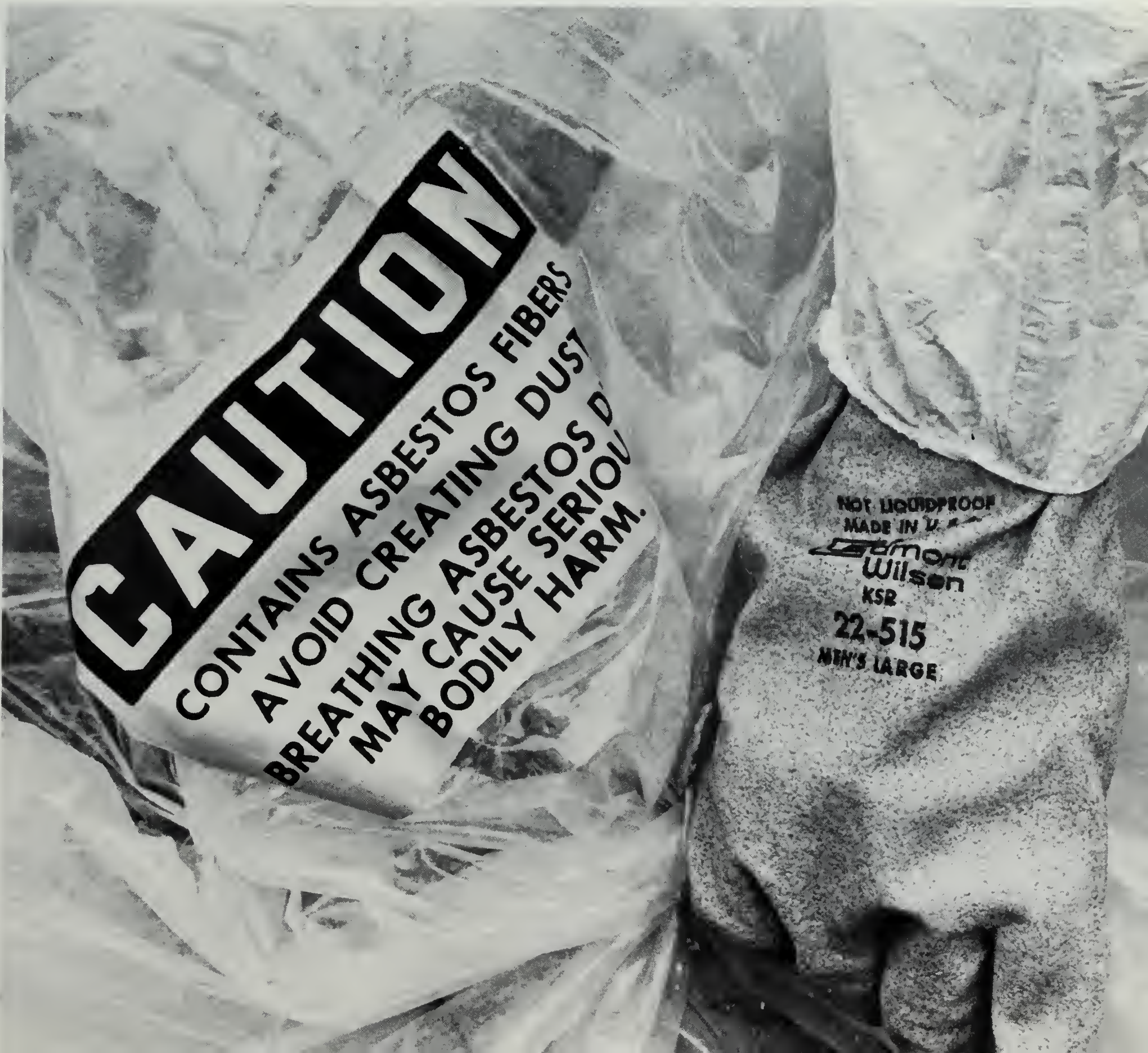
ASBESTOS

PHOTOS BY PH1 TERRY MITCHELL

Pliny the Elder, a first century Roman naturalist, reported a curious lung disability among his slaves who wove asbestos cloth. Diseases such as pneumonia and cholera, however, normally killed slaves long before any asbestos-related diseases could, so that particular lung disability received little notice for the next 1,900 years.

Gradual improvements in sanitation, nutrition and medicine have increased man's life expectancy to the point where, today, many slower acting physical, environmental and occupational diseases are now becoming significant contributors to the death rate. Two such diseases, asbestosis and asbestos-related cancers, have been diagnosed and are now being studied in depth.

Asbestos is a common fibrous material used in all industrialized nations in



A plastic asbestos disposal bag with the asbestos warning label.

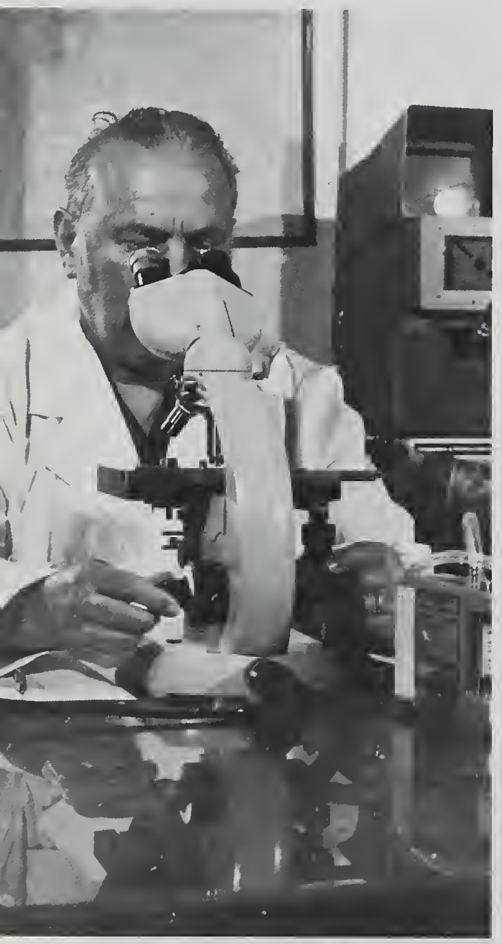
thousands of applications. Asbestos fibers can be woven into fabrics, mixed with liquids to increase viscosity, or added to solid industrial products such as cement and plastic to increase durability. As a strong, low cost, fibrous additive, asbestos has no equal. As an insulation material, asbestos provides a tough, abrasion-resistant and fireproof shield.

Over 800,000 tons of asbestos are currently used in the United States each year. The principal uses are in the production of asbestos-cement water pipe (about 220,000 tons per year), vinyl asbestos floor tiles (about 150,000 tons per year), friction products such as automobile brake linings and clutch facings (about 80,000 tons per year), and paint (about 30,000 tons per year). The use of asbestos products for thermal insulation ranks low on the list of uses, consuming about 9,000 tons per year with very little going to the Navy at present.

Asbestos fibers, or fibers that look like asbestos, can be found virtually everywhere. The air in cities, office buildings and even along country roads has been found to contain asbestos fibers. Airborne asbestos or other fibrous products are so common that the National Institute of Occupational Safety and Health has reported: "Coated fibers (asbestos or ferruginous bodies) have been found in the lungs of most adults who have lived in urban areas." Asbestos fibers, when accumulated in sufficient quantity in lung tissue, can result in a disease called asbestosis, which has a scarring effect that essentially causes some portion of the lungs to stop functioning. This condition invites lung infections and places an added burden on the heart.

The fibers can also lead to lung cancer or cancer of tissues associated with the lung particularly when aggravated by tobacco smoke. Some researchers report little or no increase in the incidence of cancer among nonsmoking asbestos workers, while among those who smoke the risk is increased ninety-fold, to the point where nearly one quarter of asbestos workers who smoke tobacco die of lung cancer eventually.

A member of the Philadelphia Naval Shipyard's asbestos monitoring team uses a microscope to measure the quantity of asbestos fibers taken in an ambient air sample.



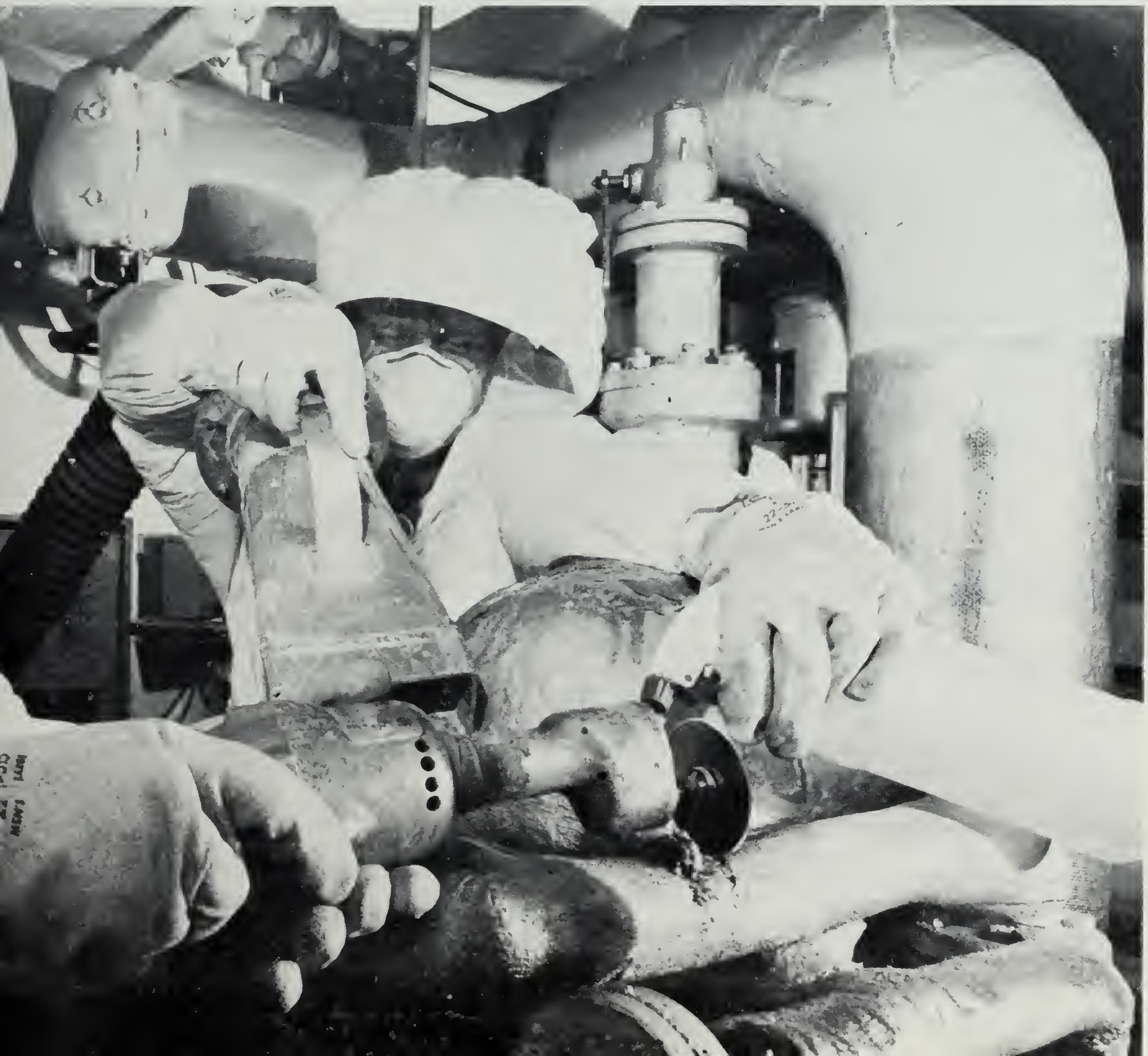
Many groups of workers may have been exposed to substantial amounts of asbestos dust. Included are millions of construction workers (exposed to airborne fibers from asbestos-cement pipe, building insulation, paint, floor tiles and roofing materials), auto mechanics (exposed to brake and clutch

One member of the asbestos rip-out crew handles the vacuum hose connected to the pier-side vacuum unit and sprays the working area with water mist. Another workman uses a cast cutter to cut through the lagging of a pump to get at the asbestos layer underneath. The men are removing asbestos from the frigate USS Ainsworth *(FF 1090). The protective clothing shown here is currently under evaluation.*

dust) and firemen (exposed to building debris). One group, shipyard workers, has received particular attention recently. During World War II, millions of individuals were employed in building ships. Most worked for private shipyards. Between 1941 and 1974, the U.S. Navy shipyards employed 650,000 to 800,000 individuals. Therefore, some unknown fraction of these workers may have had enough exposure to cause asbestos-related diseases in later years.

In Navy ships, most exposure to airborne asbestos occurs during removal of asbestos thermal insulation. The Navy now prohibits the use of asbestos thermal insulation; however, in previous years asbestos dust was not known to be hazardous and it was treated as a nuisance dust.

During a press conference on April 26, 1978, the Secretary of Health, Education and Welfare, Joseph A. Califano Jr., commented that "The Navy . . . will have a significant and important role in using resources at its



command to notify the shipyard workers [of the potential for asbestos disease]." The Secretary commented that it is simply not possible to directly contact each worker who may have been exposed to asbestos dust 35 years ago and we must therefore rely on the media and on publications (such as ALL HANDS) to do this job.

If you suspect you may have medical problems caused by asbestos dust, ask for an appointment with your ship's doctor or with a physician at the Navy Regional Medical Center serving your duty station. The physician will advise you if further examination is necessary. If you want additional information on asbestos, write: Asbestos, National Cancer Institute, 900 Rockville Pike, Bethesda, Md. 20014, or contact the Consumer Product Safety Commission asbestos hot line by calling toll free 800-638-2666 (Maryland residents 800-492-2937).

The best medicine is, of course, to avoid exposure. The following are steps you can take to prevent asbestos disease:

- *Stop smoking*—Some medical studies show very little, if any, increase in cancer among asbestos workers who do not smoke. Among those who smoke, however, the rate of lung cancer alone is increased up to ninety-fold. In addition to the cancer risk, smoking greatly increases the risk of heart attack. If you are an average person who now smokes, there is no other single act you can take that will improve your chance for living a long and healthy life than to stop smoking.
- *Avoid asbestos dust*—If you are engaged in shipwork around asbestos insulation, take the precautions specified in the Naval Ships' Technical Manual, chapter 635. Information in chapter 635 includes safety precautions, a directory for assistance, procedures for environmental sampling and monitoring and medical requirements. This chapter is continuously updated to reflect improvements in technology and procedures and to incorporate the experiences of forces afloat. If followed, the precautions in this chapter will prevent significant exposure to asbestos. If you work on your car brakes or clutch, if you are a do-it-yourself carpenter, if you find loose insulation in your home furnace, stove or an old fireproof safe, avoid breathing the dust you encounter. It probably contains asbestos.
- *Obtain regular medical checkups*—Tell your doctor if you suspect medical problems due to asbestos. He will know what to do.
- *Help the Navy control asbestos*—Navy headquarters' directives prohibit the use of asbestos thermal insulation in the repair of Navy ship propulsion plants where substitute insulation materials exist. Currently, there are asbestos-free alternatives for all pipe and valve insulation and all hot-component insulation except for pipe hangar liners. If you find an asbestos product in use and you know of an alternative, tell your superiors. The Navy is looking for asbestos-free substitutes and wants your help.

Asbestos is such a common and useful mineral that it will never be completely eliminated from the air we all breathe. However, with reasonable care, significant exposure can be eliminated and with it, one more disease that confounded Pliny and his successors for 20 centuries. ⚓

MORE ON CHAPTER 635

Chapter 635 of the Naval Ship's Technical Manual, "Thermal Insulation," is the source of information about safety measures to be used when handling asbestos. Besides general safety precautions, it also provides details on the terminology used for thermal insulation, warning labels and tags, engineering and personal controls, exposure limits, environmental monitoring and sampling, obtaining technical assistance and medical monitoring requirements.

Chapter 635 is continuously reviewed and revised as more information and improved safety procedures are identified. Recently, Naval Sea Systems Command (NAVSEA) issued a change which provided new procedures for the installation of asbestos-free thermal insulation which incorporated a color-coding system.

Instead of using tags, labels and signs to identify thermal insulating materials that are asbestos free, a new and distinctive red undercoating will be applied to the material. For example, picture a steam line in a ship's engine room, a line protected by lagging and painted with the standard color for that space. Instead of hanging a tag or sign on the lagging, the new system calls for the exterior glass cloth lagging to be sealed with a coat of red-tinted adhesive. Ships or repair activities working on the line will be able to determine if asbestos or asbestos-free thermal insulation is in the lagging by scraping through the exterior paint to see if a red undercoat is present. The absence of a red undercoating will indicate that some or all of the underlying insulation contains asbestos.

Information Exchange

Q. *Of every 1,000 ensigns currently entering the Navy, how many does the Navy predict will make captain and how many will make admiral, based on past records?*

A. Out of every 1,000 line ensigns entering the Navy, 67 may expect to make captain and eight may expect to make admiral. These projections are based upon past attrition and current promotional opportunities

Q. *Why are cartoon programs not available in all motion picture exchanges?*

A. Few new cartoons are made today because of their high cost of production and distribution to theaters and the availability of television ashore. As a result, the Navy Motion Picture Service's source of new cartoons has dried up. However, within its budget limitations, NMPS has started a program of procuring old cartoons and will attempt to add a cartoon in front of every new feature picture program in the future.

Q. *Does the Navy exchange follow commercial or military practices?*

A. Actually, the Navy exchange adheres to both. In its day-to-day operations, the exchange uses the full range of commercial retailing procedures. However, as an entity of the federal government, the exchange is governed by regulations approved by Congress and issued by the Department of Defense.

These regulations, known as the Armed Services Exchange Regulations (ASER), prescribe the type of merchandise and services that may be provided patrons by exchanges within the continental United States. They establish who is an authorized customer, and set the maximum wholesale price that exchanges can pay for certain items of merchandise. They also restrict the sale of certain merchandise by the exchange.

Overseas Navy exchanges must follow the general policies and procedures of the ASER but they are not bound by all the restrictive portions of the regulations.

Q. *I have been away from home for nearly 10 years. Nobody back there remembers me anymore, so why should I bother to fill in a Home Town News Release form?*

A. It's surprising how many people will remember you, especially since parents usually keep your former friends and acquaintances informed of your service career. Many service career highlights can be traced by home town news clippings. Consider, too, how proud your parents feel when the story of your promotion or award is printed in the local newspaper.

Q. *My husband and I are both in the Navy. I am due for assignment to sea duty (which will be an activity overseas) and my detailer tells me that he will not be able to assign my husband with me. I thought that my husband and I would always be assigned together for "spouse duty." Can you clarify the "spouse duty" assignment policy?*

A. The Navy will try to keep Navy spouse teams together. But that effort requires knowledgeable planning by the couple and coordination with both their detailers before orders are issued.

The OUTUS/CONUS rotation plan for enlisted women gives a service couple a wide range of assignment options, since all overseas duty counts as sea duty for women. For example, the husband may be aboard a ship in San Diego while his wife has shore duty there, or the wife can be in Naples for sea duty while the husband is serving ashore in that area. However, males and females may have to forego a key job in order to be assigned together or some separation will occur.

Prescribed sea/shore rotation patterns for the respective ratings must be followed for women and men. Such rotation patterns can be at odds for a service couple who request a spouse duty assignment because of different sea/shore tour lengths.

Every effort is made to station husband and wife in the same geographical area as long as valid, vacant billet requirements exist and the Navy's manning requirements are met. The Navy cannot guarantee, however, that husband and wife will be together.

Each request for spouse duty assignment will be considered on an individual basis and approval will depend on the availability of valid, vacant billets, PCS funding constraints and needs of the Navy in effect at the time a request is received. The criteria to be met for spouse duty assignment is contained in the *Enlisted Transfer Manual*.

Q. *Why are classic movies not stocked in the Navy Motion Picture Service (NMPS) exchanges?*

A. NMPS has only a limited budget for classic movies and has only five to 10 copies of each title, as compared to 40 copies of each new movie procured. Classic movies are available only on direct loan from NMPS, Brooklyn, which fills requests on a first come, first served basis.

Managing

Your Fortune

BY JO1 DAN WHEELER

"Annual income twenty pounds, annual expenditure nineteen nineteen six, result happiness. Annual income twenty pounds, annual expenditure twenty pounds ought and six, result misery."

Mr. Wilkins Micawber, perennially indigent, failed to heed his own counsel. This Charles Dickens' character discovered too late that solvency isn't the consequence of good luck or more money, but of sound money management.

So, it was a debt-ridden old man who offered that wise advice to young David Copperfield, and then sneaked out the back door, a step ahead of his creditors.

Some Navy people, regrettably, are modern Micawbers who foolishly overspend their way through life, saving nothing and leaving debt in their wake. A few, like Micawber, could lecture on the virtues of budgeting and thrift, while pitifully mismanaging their own financial affairs.

Other Navy people, however, are headed for the shoals of financial ruin because of ignorance. They haven't learned the advantages of budgeting, saving and wisely using credit. This article is intended for them.

The Budget's the Thing

Far from being a roadblock to pleasurable living, a budget is the road map which points the way to solvency, and solvency is the key which unlocks the door to the "good life." Your trip to financial security may be via the most direct route with no layovers or detours, or by way of a leisurely route ending at the same place.

"Regardless of how flexible, the first step in devising a workable budget is to determine how you are spending your income now," said a banker ALL HANDS interviewed. "Whether you earn $5,000 or $50,000 is immaterial. You're headed for financial trouble if you don't know exactly where your money is going."

There are two ways to determine this: record every expenditure for a month or two and devise a budget based on those figures, or estimate your expenses and make budgetary adjustments as necessary. Either method will require periodic updates to reflect changing circumstances and to mold the budget into a useful financial tool.

Navy Relief Society, an organization which assists Navy and Marine Corps members in times of emergency, provides financial counseling services designed to help service people and their families start out on a sound footing, or, if in debt, help them dig out. Their counselors use a comprehensive budget form (see accompanying form) which may be adapted to individual needs, used as is, or used as a guideline for devising your own system.

"I tried a published budget once, but it didn't quite fit my needs," said a Navy lieutenant, "so I invented my own budget system. I think it's a good idea to keep a running total of your debts along with an income-outgo budget notebook. This way you can see progress being made in debt reduction and better judge if you can afford additional purchases.

"My budget consists of a set of monthly work sheets which include due dates for fixed obligations, amounts due and the previous month's balances. Another column lists my projection of variable expenses such as food, and, next to each, what I actually spent. Using my method, I can readily see when I have to rethink my budgeting."

No matter what method is used, every item on where money is spent has to be included. Some expenses frequently overlooked include tobacco products, liquor and beer, barber and beauty shop fees, shoe repairs, books and magazines, drugstore products, stamps, coffee mess dues, food purchased away from home, gifts, miscellaneous car expenses such as oil changes and bills that come due semiannually or annually such as auto insurance. None of these are large in themselves, but they must be included in your plan—even a small leak can sink a great ship.

Without actual spending records, the hardest item for most families to budget is food and other products generally purchased at a food store. The Consumer and Food Economics Institute of the Department of Agriculture recommends that the following amounts be used as monthly guidelines for food and miscellaneous food store items for each family member. All figures reflect commissary savings.

MALES ages 12 through 19	$72
FEMALES	$61
ages 20 through 54	$76
FEMALES	$62
ages 55 and above	$67
FEMALES	$56
CHILDREN under 3 years	$31
ages 3 through 5	$40
ages 6 through 9	$52
ages 9 through 11	$65

Families of three or less should add about 10 percent to the total estimate; families of five or more should subtract about eight percent from the total estimate. These adjustments take into consideration the costs, quantity and duration of miscellaneous items such as shampoo, household cleaning supplies and paper products.

Regardless of family size, add about $10 per person to your monthly budget for clothing expenses—less if you make some of your own clothes or use hand-me-downs. Also, figure about five percent of net pay per adult for personal expenses.

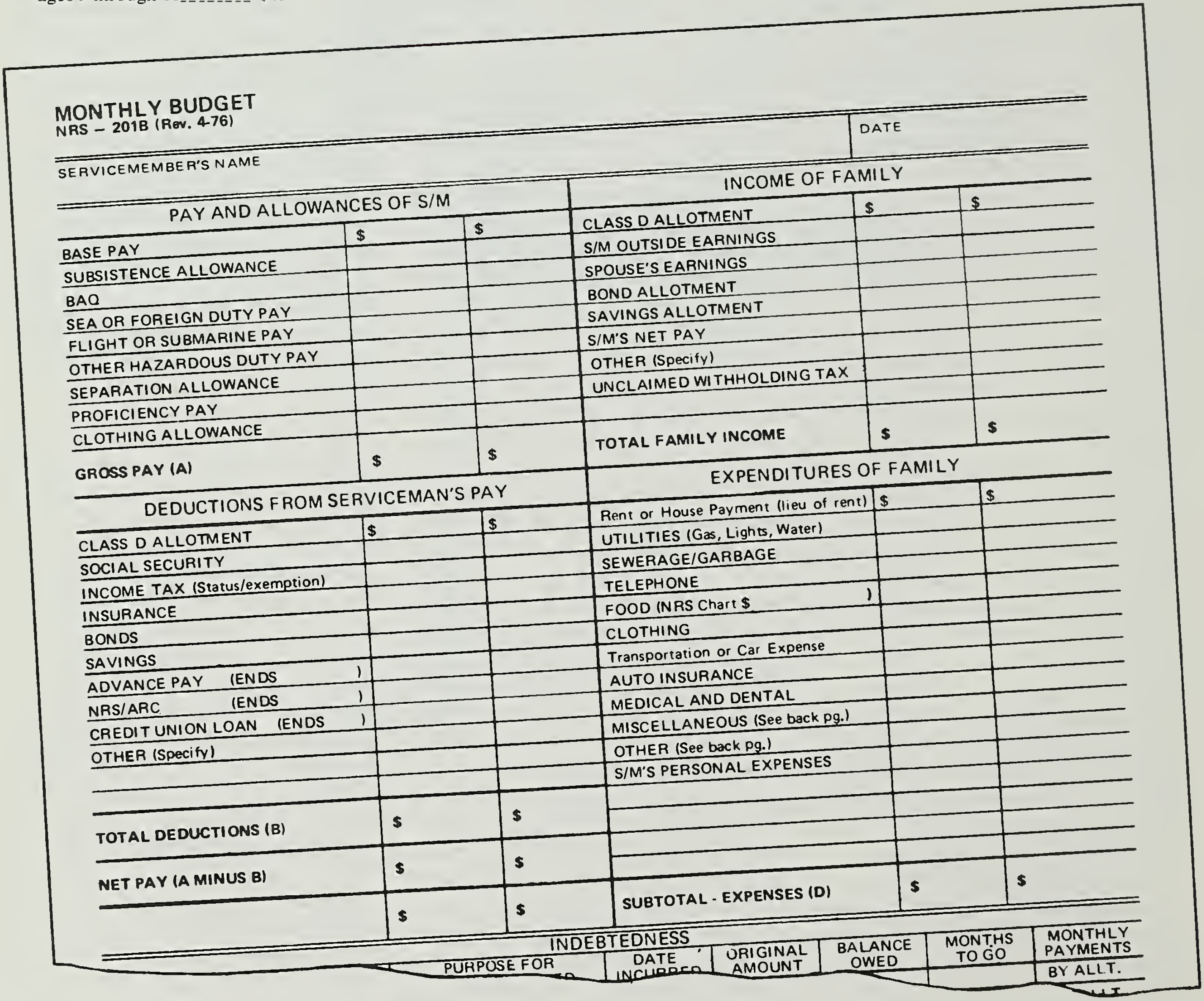
When listing fixed expenses, don't forget to pay yourself. Part of everything you earn should be yours to keep, so earmark a portion of each month's income for savings. It's these dollars that will provide a cushion in case of emergency and open the door for opportunity.

Once you have developed a family budget, use it. It will alert you to areas which require more control and provide invaluable counsel when you are considering major purchases.

Stretching Your Dollars

Once a family has a budget and begins setting financial goals, they invariably look for ways to make their dollars do double duty. Some money-stretching hints follow.

- Avoid writing checks, especially at the grocery store, for more than the purchase price. Dollars saved in your pocket are not dollars saved.
- Don't buy anything on impulse. Merchandise packaging, arranging and



MONTHLY BUDGET
NRS – 201B (Rev. 4-76)

SERVICEMEMBER'S NAME

DATE

PAY AND ALLOWANCES OF S/M		
BASE PAY	$	$
SUBSISTENCE ALLOWANCE		
BAQ		
SEA OR FOREIGN DUTY PAY		
FLIGHT OR SUBMARINE PAY		
OTHER HAZARDOUS DUTY PAY		
SEPARATION ALLOWANCE		
PROFICIENCY PAY		
CLOTHING ALLOWANCE		
GROSS PAY (A)	$	$
DEDUCTIONS FROM SERVICEMAN'S PAY		
CLASS D ALLOTMENT	$	$
SOCIAL SECURITY		
INCOME TAX (Status/exemption)		
INSURANCE		
BONDS		
SAVINGS		
ADVANCE PAY (ENDS)		
NRS/ARC (ENDS)		
CREDIT UNION LOAN (ENDS)		
OTHER (Specify)		
TOTAL DEDUCTIONS (B)	$	$
NET PAY (A MINUS B)	$	$
	$	$

INCOME OF FAMILY		
CLASS D ALLOTMENT	$	$
S/M OUTSIDE EARNINGS		
SPOUSE'S EARNINGS		
BOND ALLOTMENT		
SAVINGS ALLOTMENT		
S/M'S NET PAY		
OTHER (Specify)		
UNCLAIMED WITHHOLDING TAX		
TOTAL FAMILY INCOME	$	$
EXPENDITURES OF FAMILY		
Rent or House Payment (lieu of rent)	$	$
UTILITIES (Gas, Lights, Water)		
SEWERAGE/GARBAGE		
TELEPHONE		
FOOD (NRS Chart $)		
CLOTHING		
Transportation or Car Expense		
AUTO INSURANCE		
MEDICAL AND DENTAL		
MISCELLANEOUS (See back pg.)		
OTHER (See back pg.)		
S/M'S PERSONAL EXPENSES		
SUBTOTAL - EXPENSES (D)	$	$

INDEBTEDNESS

PURPOSE FOR	DATE	ORIGINAL AMOUNT	BALANCE OWED	MONTHS TO GO	MONTHLY PAYMENTS
					BY ALLT.

DO I REALLY NEED THIS?
SODA POP

advertising are designed to encourage this costly habit. Plan your purchases.

- When used furniture will do, buy it and refinish it, if necessary, at considerable savings.
- Claim the correct number of exemptions on federal income tax withholding, instead of claiming "O" in anticipation of a large tax refund. For most service families, each deduction claimed increases take-home pay by about $10.00 a month.
- Join a carpool.
- Use a shopping list and plan your menus at home, not at the store. Also, never shop for food when hungry; it encourages impulse buying.
- Shop at the commissary and exchange to make your dollars go about 20 percent further.
- Shop for credit. Even half a percent interest difference mounts up over the course of a year or two.
- And, finally, don't buy anything that is not a necessity. Strict as it sounds, buying according to preset priorities is the key to being able to make major, worthwhile purchases.

What About Credit?

The Truth in Lending Act defines credit as "the right granted by a creditor to a debtor to defer payment . . ." Such an arrangement can be a budget saver in emergencies and make substantial purchases possible or a nightmare when used unwisely.

Navy people in lower paygrades are especially susceptible to credit problems. "But we don't have a disproportionate number of people with financial problems," said Rear Admiral J. R. Ahern (see accompanying interview). "However, a number of Navy people in the lower paygrades are frequently on a marginal financial basis because their income barely covers basic living expenses. These members have to be budget conscious, not just aware of credit pitfalls, to remain out of financial difficulty."

An important step toward gaining that financial expertise is learning to shop for and compare credit resources. Other than credit cards, there are four basic places from which to get installment credit: credit unions, banks and savings and loan associations, small loan companies and pawn shops.

"It's almost a cardinal rule that credit union members check first with their credit union when they want to borrow," said a credit union official. "We are prohibited by law from charging interest at more than 12 percent Annual Percentage Rate (APR) and our terms are very competitive with commercial banks."

Speaking about shopping for credit, a bank vice president said, "Some people, especially young military members, don't bother to compare credit terms. They readily allow a car dealership, for instance, to arrange financing regardless of cost, or they deal with the first establishment willing to grant credit.

"The interest rate doesn't seem to matter," he said, "until much later, after they have discovered the high cost of using other people's money."

All the bargaining in Baghdad won't overcome poor judgment in selecting a

place to finance major purchases. For instance, consider the differences in interest expense incurred on a four-year, $5,000 new car loan:

	11%
amount	$5,000
interest	$1,203
total	$6,203

	12%
amount	$5,000
interest	$1,320
total	$6,320

	20%
amount	$5,000
interest	$2,296
total	7,296

As previously mentioned, credit unions are prohibited from charging more than 12 percent APR; bank rates are regulated by law also and are competitive. Small loan companies' rates vary from about eight percent to 42 percent; and pawn shops, all of which require maximum collateral, charge up to 120 percent annually.

One of the largest potholes on the road to solvency is the ill-advised use of credit cards. "I think credit cards stink," said a first class petty officer who had finally dug himself out of debt. "They build a false sense of security and lead people into spending more than they can afford. In my opinion, credit cards are a major cause of impulse buying. People who use credit cards as extra cash are building a false personal economy which can't help but collapse."

Credit union officials and bankers agree that credit cards should be used only in cases of emergency or for record keeping, and never for major items such as furniture and appliances. "There are much cheaper avenues of credit open to most people," a banker said.

Prudence is the rule when using credit cards. Some guidelines for their use are:

- Don't charge more than can be paid in full before the due date shown on the bill, thereby avoiding finance changes.
- If tempted to charge more than can be repaid in one payment, ask yourself this question: "Is the merchandise worth the extra cost of credit?" For instance, if a TV costs $400 and the credit charges will amount to $72, is the set worth $472 to you? If the item was on sale, and the reduction was more than the finance charges, the answer may be yes. If not, it may be prudent to save for the item rather than charge it.

A cash advance can be obtained on some credit cards, especially bank credit cards. Advances appear on the billing just like any other charge, but there are several important differences.

1. There is no grace period for a cash advance and most lenders charge a higher rate for the first month—two percent more—which can't be avoided by paying within the specified period allowed for other charges.

2. Payments are credited first against cash advances, then against other charges. This means your payments will be credited against that part of your bill bearing the lowest interest rate first, while the more expensive credit continues to mount. Thus, if a customer's cash advance has been large and the monthly payment small, the system could prove quite expensive on a frequently used account.

Cash advances are a credit trap that encourage impulse buying because money is easy to get. In fact, according to a Navy Relief counselor, "Use *all* credit cards as little as possible, pay the balances as quickly as possible, and don't use them at all if credit is available cheaper elsewhere or your purchase can be postponed."

Credit Worthiness and How To Get It

The lament of the young and of those who have been stationed overseas on extended tours is "You have to have credit to get credit." A catch-22 perhaps?

"It's sometimes a good idea to borrow when you don't need money," a credit union counselor said. In other words, deposit money in a savings account and then apply for a loan using your savings as collateral. "If you repay as agreed, you will have established credit," he said, "and no lending institution I know will disapprove a fully secured loan request such as this."

After credit has been established, or re-established, one's ability to obtain additional credit is limited only by the "three Cs"—credit history, capacity and character. A lender justifies the approval of a loan based on the applicant's ability to satisfy the lender's requirements in each of these three categories.

- Credit history—A summary of borrowing experience. A poor credit history can eventually be overcome by the display of good faith, that is, by paying all previous debts regardless of how delinquent or where contracted. "We now have nationwide credit reporting based on zip codes," a banker said. "When you are transferred from one part of the country to another, your credit record follows you."
- Capacity—This is a measurement of the borrower's ability to repay, or "service the loan," as lenders say. Your credit application must clearly demonstrate that you can take on additional debt without jeopardizing your ability to service existing debts. "We will disapprove an application even though the applicant has a good credit history if we feel an additional obligation will squeeze him financially," a credit committee representative at a large Navy credit union said.
- Character—"Believe it or not," a banker said, "some people come in here to borrow and have no intention of repaying the loan." In a nutshell, the character requirement is there to weed those people out.

Though a lender can't disapprove an application because of the applicant's sex, marital status or race, the lender can refuse to grant credit for a variety of reasons which are sub-categories of the three Cs. For instance, a person whose obligated military service is about to end may experience difficulty getting credit unless he has guaranteed employment or sufficient collateral. Other reasons for denying credit are: application incomplete, insufficient credit references (you'll never need more than three, so don't open numerous accounts just to get references), insufficient income to meet payments, excessive debt, delinquent credit accounts or bankruptcy proceedings in progress.

"Perhaps We Passed In the Mail?"

"People experience cyclic financial hardships and are unable to make contractual payments on time," a banker pointed out. "A new baby can disrupt cash flow or even plunge a marginally solvent family into debt; the purchase of a new home can disrupt cash flow; an expensive transfer or a move out of government quarters and into the civilian economy can create temporary hardship—it can happen to anyone.

"The important thing to remember when you can't make a payment as agreed is to talk to your creditors and explain the situation," he said. "Don't let a temporary setback blossom into a long-term disaster through neglect."

The most common reason for missing an installment payment is an interruption in cash flow—an allotment is late or an unexpected expense requires money usually allocated for a contractual payment. When this happens, call or visit the creditors involved. Virtually all of them will grant a 15-day extension and your good credit rating won't be damaged.

In more serious situations where a payment will have to be skipped and there doesn't seem to be any way to make it up, visit creditors and explain the situation. "Psychologically, this is very difficult," said a credit union official. "The person is already embarrassed that he can't pay as agreed and he may be on the defensive. That attitude is nonsense. Everyone experiences problems from time to time and most can be worked out."

Most creditors are willing to extend a loan contract, making it possible to pay an extra month or two to make up the missed payment(s).

"Whether this arrangement will reflect unfavorably on your credit standing depends on whether you were already late when you came in to renegotiate," a banker said. "Come in as soon as you know you will probably not be able to make a payment. Don't wait for us to contact you."

The most serious situation, of

Managing Your Fortune

course, is when a debtor discovers he can't continue to pay the full payment month after month—he is overextended. This problem also can be worked out with a minimum amount of damage to credit standing, if he is willing to display good faith and work with the creditor.

"Only when a borrower is unwilling to contact us and keep us apprised of his situation will we take legal action to collect," a banker said. "It may be that the loan can be refinanced at more favorable terms or the duration of the loan can be extended. In extreme cases, the bank writes the loan off and the individual continues to pay periodic, set payments into our recovery fund. When the obligation is paid in full, we notify the credit bureau and a notation is made in the person's credit record that he faithfully discharged his obligation."

The rule when insolvency threatens is: don't be so blinded by present problems that you fail to consider the long range consequences of your actions. Contact creditors. "No one is going to slap your wrist or, for that matter, make you grovel," a banker said. "We are happy to hear from you. We don't want to be forced into legal action; we would rather receive a smaller payment than nothing at all."

Help! I'm Sinking!

When you can't make contractual payments as agreed, obviously you are in trouble. But there are warning signs preceeding this.

"If you've got more than 15 percent of your gross annual income committed to signature loan payments, excluding car or mortgage payments, you're headed for trouble," a credit union official said.

Other symptoms of the financial headache are not having enough money to last from payday to payday, being forced to write checks before your paycheck is deposited and never having enough money to pay unexpected expenses.

The first step to take to get out of trouble is to determine why you are in trouble. Either your money is being mismanaged because your budget is out of kilter, or there isn't enough money no matter how skillfully you budget. In either case, the budget is the first item to get in order— find out how bad things really are.

Armed with that information, you know if your problem can be solved by adjusting spending habits and cutting unnecessary expenses, or if you must take the next step—consulting with the installation's legal assistance officer and a financial officer.

Credit unions, Navy Relief Society field offices and many banks offer financial counseling services. If your debt situation is overwhelming, this is what you should do step-by-step:

- Make an appointment to see the legal officer and explain your situation. In many cases, the legal officer will be able to offer suggestions for balancing your accounts and minimizing the damage done to your credit standing and military career. (All service members are required to pay their just and legal debts.) If the legal officer deems appropriate, he will recommend a professional financial counselor. Often before doing this, he will recommend that you contact your creditors, explain your situation and attempt to negotiate more favorable payment schedules.
- If financial counseling is necessary, begin immediately. Some credit unions offer receivership programs in which a service member sends the credit union a set amount monthly earmarked for debt reduction. The credit union, in turn, sends this money to creditors on a pro rata basis.
- In some cases, a person is eligible for a debt consolidation loan, but he must meet the requirements dictated by the three Cs. Under a debt consolidation, select debts (or all of them) are paid with borrowed money and the individual makes one monthly payment to one lending institution. This method may save your credit standing, but it is not without its pitfalls. "Too often," a banker said, "we have a person come in here several years after getting a consolidation loan and again they are deeply in debt, usually to many of the same businesses we paid previously. Consolidations are such easy ways out that they seldom have long-term benefit."
- If creditors are unwilling to accept smaller monthly payments—a rare case—the most drastic measure is some form of bankruptcy (see accompanying article). This is seldom necessary if the debtor is willing to cooper-

ate and make the sacrifices necessary to meet his obligations.

Any of these remedies require the service member to rethink his spending habits. Once a person is deeply in debt, there is no way out other than steadily reducing obligations through personal sacrifice and regular payments.

Avoiding the Micawber Syndrome

The only way to avoid financial problems is to exercise sound money management principles. "Make it a policy to buy all minor purchases with cash," a Navy Relief Society counselor said. "This forces an individual to consider each purchase, the effect it will have on his overall money situation and it makes right decisions easier. Few are those willing to spend $300 cash for an unneeded item on the spur of the moment. It's much easier, on the other hand, and requires less conscious thought to tender a plastic card and cart away the merchandise."

Some other tips for avoiding financial trouble are: plan for all purchases and shop for bargains; always shop for credit; use store coupons and wait for sales; take advantage of the consumer booklets available in credit unions and banks; stick to a budget; and seek advice from a competent financial counselor or legal assistance officer before making any installment purchase.

"I think if you learn how to handle your money as a seaman," said a master chief petty officer, "you will be able to handle your money as a petty officer and so on. If you can't properly manage a seaman's pay, things aren't going to be any better when you are a chief.

"More money is never the answer. Intelligent buying and proper management of what you earn is the key." ⚓

What About Bankruptcy?

BY LCDR DAVID GUY

Members of the Navy are expected to meet their just and reasonable debts. For a wide variety of reasons, including today's easy credit environment, some Navy members incur debts which they cannot pay as agreed. These individuals may face legal action instituted by creditors to obtain payment or return of merchandise.

Navy men and women who cannot pay their just debts or who deliberately default on a contracted debt may face more severe penalties than the general public. Dishonorable failure to pay just debts can lead to disciplinary or administrative action.

An individual with financial difficulty may contemplate bankruptcy or may be forced into bankruptcy by a creditor. Basically, the Federal Bankruptcy Act (11 U.S.C.A. Sec. 1, *et. seq.*) provides for two types of bankruptcy proceedings for individual debtors.

One is straight bankruptcy whereby an individual's qualifying debts are discharged. The second procedure is a wage earner's plan under which debts may be composed or extended. In a straight bankruptcy proceeding, non-exempt assets of a debtor are accumulated by a representative of the Court and distributed to creditors in accordance with instructions of the Court as satisfaction for outstanding debts.

A wage earner's plan is designed to provide the debtor with temporary relief, enabling him or her to satisfy outstanding indebtedness from future earnings while retaining possession of non-exempt property. A wage earner's plan is approved at the discretion of the Court.

Bankruptcy is an extreme legal step and should be avoided if there is an alternative way to handle the problem. Any Navy person who gets into debt too deeply to handle payments out of current income should take immediate action to see a legal assistance officer or civilian attorney.

Bankruptcy is a complicated area of law and a number of factors must be considered. For instance, some debts such as alimony payments cannot be discharged by bankruptcy, and some types of income are invulnerable to creditors.

There also may be other ways to ease the problems associated with excessive debt. These include informal arrangements with creditors whereby they agree to accept a pro rata (percentage) share of monthly payments due until the obligation is discharged, a credit union allotment plan or a consolidation loan (a more costly process than some other options).

A Navy member who contemplates bankruptcy or a wage earner's bankruptcy plan should be aware of the Bureau of Naval Personnel Manual's provisions on this subject. Section 6210140 requires Navy officers to submit "a full report [to the Chief of Naval Personnel] of circumstances in connection with any petition in bankruptcy, discharge in bankruptcy, or approved wage earners' plan concerning any member of their command."

The section further provides that a discharge in bankruptcy will not automatically provide immunity for the service member from prosecution or other actions for offenses of dishonorable failure to pay just debts. ⚓

Perils and Pitfalls in Money Management

Rear Admiral J. R. Ahern, Deputy Comptroller of the Navy, has been involved with the management of Navy appropriations for more than 30 years. A recognized authority in the field of finance, he is keenly interested in the financial education of Navy members and is currently working on several programs to increase the financial awareness of Navy families.

ALL HANDS *recently talked with the admiral about the Navy's pay system. During the course of that interview, RADM Ahern touched on many areas important to individual financial planning, but space precluded our printing them at length. So, we went back for more information. The admiral's comments on prudent use of credit, budgeting and overall money management follow.*

Q: *What is being done to teach Navy people how to better manage their money?*

A: A limited amount of classroom time is allotted during recruit training for teaching financial planning information. This segment is devoted largely to budgeting. We are working with the Chief of Naval Personnel and the Chief of Naval Education and Training to expand the amount of financial training available. Additionally, the General Military Training package includes a segment on financial responsibility which is disseminated at each command annually.

Q: *Does the Navy benefit by its members being good money managers?*

A: To a large extent, it serves the Navy's interest to ensure that all members are properly indoctrinated in all areas of financial planning. When a Navy man or woman experiences financial difficulty, frequently the division officer, executive officer and commanding officer must get involved. This, of course, takes valuable time from other management responsibilities.

If an individual's situation warrants, one of the members of the management team will have to develop a complete financial plan for the individual and, in many instances, contact creditors to arrange more favorable terms of payment. After all this has been done, if the service member is not willing to endure the necessary austerity, a great amount of time has been wasted. In some cases, debt-ridden individuals try to cure their problems by going UA. In those cases, we have lost time spent in counseling, we have lost the member, and we have lost all costs involved in recruitment and training.

Q: *Is there a correlation between irresponsible money management and poor job performance?*

A: We've never made a study to determine if there is a direct correlation; in many instances, there is no indication of poor job performance by those in financial trouble. On the other hand, there are also cases where people have gone UA after getting into financial difficulty.

We have studied those cases where unauthorized absences are involved and found a direct correlation between high debt and UAs. We don't know if the two are related symptoms or if one is cause and the other effect.

Q: *Can financial irresponsibility result in punitive measures being taken by the Navy?*

A: Yes. Commanding officers can charge people who have demonstrated an unwillingness to pay just debts under UCMJ Article 134. Furthermore, chronic offenders who make no effort to rectify their situation after being assisted by their command are processed out of the Navy under the provisions of BUPERS Manual 3420184.

Q: *Do you think these courses of action solve the problem?*

A: No, they are not the solution. By taking action under the UCMJ, we are trying to get the individual's attention and focus it on the seriousness of the situation. We want him to take necessary steps to get his finances in order. This includes altering his life style so he can meet his obligations and avoid repetitive financial irresponsibility in the future.

When we administratively separate an individual for repeated offenses, we are, in effect, giving up on him since he has demonstrated that he cannot, or will not, discipline himself to live within his means. His continued presence in the Navy is an administrative burden and could bring further discredit to the service. Both of these actions—UCMJ and administrative processing—are an expense, but the loss of the individual is by far the most costly.

Q: *What, then, can be done to prevent these unnecessary losses?*

A: We must educate our men and women in personal financial planning and prudent money management. This is a difficult task to undertake. Training time is hard to obtain and expensive. With increasing requirements and fewer resources, it is difficult to provide financial training. However, it must be provided.

The first step is recognizing that the training is essential and shaking off the old constraints of rigidly enforced "do nots" in favor of an enlightened philosophy. We probably don't have sufficient resources to take on a large financial enlightenment program. However, there is a community of experts who would probably fill this void if permitted to do so. They are the large number of financial institutions that deal with Navy people on a day-to-day basis.

Not a day passes in which some of our Navy people don't seek loans for houses, cars, furniture and other major purchases. Unfortunately, some of these loans will result in "problem accounts" because the members are not wise money managers. Given this situation, many, if not all, of these financial institutions— particularly those that are Navy-oriented such as credit unions—would welcome the opportunity to provide counseling and money management training.

Such an approach would be in everyone's best interest. Navy people would benefit because their budgets would be in order and lending institutions would meet their borrowing needs. Financial institutions would benefit because they would have less problem accounts. Finally, the Navy would benefit because its members would have ready access to professional counseling, enabling them to keep their financial burden under control, and we would avoid the unpalatable problem of disciplinary action.

The problem lies in finding a proper, legal avenue to undertake this effort and we are working on that.

Q: *What would be your advice to a Navy member who confided to you that he or she was in serious financial trouble?*

A: When anyone has a financial problem, you have to analyze the individual's total income and expenses. Obviously, the problem is that after meeting expenses, there is little or no income remaining. Usually, it is impossible to increase the member's income, so something has to be done about expenses.

Expenses can be spread out over a longer period by working with creditors to effect a reduced payment or a consolidation of existing bills can be investigated. Consolidations serve to lessen monthly payments and extend the period of payment, though they usually increase the long-term interest obligation.

Another thing that can be done is review expenses to determine if they can be lessened. If an individual has two cars, a stereo and TV—all of which are unpaid—perhaps they can be sold to lessen the total obligation. This is a painful process but a necessary one if an individual has overextended himself and wants to achieve financial stability.

Q: *Do you think "moonlighting" is the answer to financial problems?*

A: Moonlighting is not a sound solution for most people. The biggest problem with moonlighting is that the individual's primary duty usually suffers. Another problem frequently encountered is the member becomes dependent on extra income and incurs debts based on continuation of a second income.

We are a mobile community and usually move to another geographic location every three or four years. When this happens, the moonlighting job is gone and we are in greater financial difficulty than before.

Q: *What elements of financial planning are important if one is to ever attain the American dream of the "good life"?*

A: First, one must recognize that not all material possessions comprising the so-called "good life" are attainable at any given time. The right time varies for each of us and is determined by the surplus of income available after providing necessities. For some members, none of those things may be feasible at this point in their careers. In fact, pursuit of the good life prematurely may preclude their ever attaining it.

Q: *What type of financial planning is involved?*

A: The essence of money management is to put the personal money budgeting process on a business basis. That is, remove human emotions from the decision-making process. Too often we are swayed by the fun of a new car or the enjoyment a new TV would offer and are subsequently trapped by an unwise purchase. We satisfied some part of our ego but ruined our budget.

What we must do is step back from the situation and carefully consider the consequences of each purchase. If we are going to be squeezed financially, if we have no margin for unexpected expenses, then we must reject the impulse to buy. If an item is truly desired, then we should begin setting aside a monthly amount and buy it later. By doing this, we mirror what any sound business operation does.

In a nutshell, personal money management embraces short-term expenses, fixed expenses such as rent and utilities, capital investments such as a house or automobile, insurance and savings, credit ratings, consumer awareness and borrowing. Not everyone is concerned with these at all times, but eventually become involved with each and therefore should be knowledgeable.

Q: *Finally, Admiral Ahern, what are some financial pitfalls Navy people should avoid?*

A: Some Navy people—especially the younger ones—get into trouble because they don't deal with reputable businesses. They decide they want something which, in reality, they can't afford. Reputable business people realize the person can't afford the product and know they will not be able to use their normal avenues of credit, so they refuse to sell to the member.

The Navy person then turns to other businesses until he finds one that will extend credit. Two things are usually present in such an arrangement: the unit price of the item is substantially higher. In some cases it will cost twice as much; the interest rate may be the maximum permitted by law.

In short, the individual who buys what he cannot afford will end up paying far more than the item is worth.

One other word of caution: beware of the "bait and switch" technique. This is usually practiced by marginally reputable businesses. When the service person arrives to look at an item that has been advertised at a low price, he is steered to a higher priced item where the business profit is greater. This is another pitfall encountered by people who are trying to buy what they can't afford and are therefore seeking a businessman who will arrange financing for them.

If you want to avoid financial difficulties, you must be a prudent buyer and live within your income. Any other course of action will eventually lead to overwhelming debt.—*JO1 Dan Wheeler* ⚓

Naval Weapons Station, Concord

TULE ELK

BY AL COMPAGLIA
PHOTOS BY EARL ANGUS

An unsuspecting motorist driving along California's Highway 4 who sights a magnificent bull elk with a six-foot rack and an entourage of two cows and two calves would be a bit disconcerted to say the least. This unusual family is the first of a herd that has now grown to 31 at the Naval Weapons Station at Concord.

After learning that the herd in the Bakersfield area had expanded to a point that overgrazing was evident and they were planning to authorize a hunt to reduce them, Concord's Commanding Officer, Captain Joseph J. Paulis, worked closely with the Fish and Game Commission to establish the herd on station property. The Naval Weapons Station affords approximately 7,000 of its 12,000 acres as grazing land for the rare species. Next to the moose, the elk is the largest member of the deer family. Initially, when the first six elk arrived in January 1977, they were kept in a small enclosure close by in order to water and feed them. Eventually, they were turned out to graze on the rolling hills.

The first group increased four months later with the birth of two calves. The Fish and Game Commission, noting the success of the first herd, transplanted 25 more elk to the station, bringing it to its present size.

Tule elk once roamed the foothills and valleys of central California in great numbers. They generally look like other species of elk except they are smaller. Both bulls and cows have pale, reddish summer coats with darker heads and legs; the rump, paler, has a tawny look.

A bull elk weighs approximately 700 pounds, compared to 1,000 pounds for other types. Although there are other species of elk, Tule are only found in California; they do not migrate to the mountains like other varieties, and generally stay in the foothills of the lush upper and central valleys.

Records indicate that herds existed in the Concord area until the mid-1880s. Serious commercial exploitation of the Tule elk began in the early 19th

Right: A mature Tule elk grazes on the rolling hills of the Naval Weapons Station at Concord.

TULE ELK

century when elk were taken as part of the hide and tallow trade.

Tule elk were nevertheless numerous until 1848 when the gold rush began. After that the herds began to diminish to the point where they became almost extinct. Realizing this, the government and private citizens provided the necessary protection, management and development programs to bring the Tule elk back to where the possibility of complete extinction no longer exists.

The commanding officer and Navy personnel of the Concord Naval Weapons Station are proud that the elk which once roamed in such vast numbers are again in this area and adapting so well that they will be able to provide seed herds for other areas, thus insuring their survival.

Tule elk once roamed the San Joaquin and Sacramento valleys of central California. Now, an extremely rare herd lives peacefully in the protected environment of NWS Concord.

the IMITATOR

BY PH1 TERRY C. MITCHELL

Is it possible to fly in 17 aircraft in one hour and take off and land only once? Sure, I did it. But it will never make the record books because it's quite a normal thing at the Navy Test Pilot School in Patuxent River, Md.

In reality, I didn't fly in 17 different aircraft, only one—a World War II B-26 *Marauder* bomber. The plane, equipped with a variable stability computer system, is owned by a civilian corporation under contract to the NTPS to provide instruction for their students.

I recently had the opportunity to fly in this unique aircraft in order to photograph a student pilot and also to witness this unusual plane's operation.

On the way to the flight line, Rodgers E. Smith, an engineering pilot for Calspan (owner of the plane), gave me a briefing. Lieutenant Commander Rene Chicoine, his student for this hop, was already atop the fuselage ready to climb in and buckle up.

"We put a cushion in the back seat for you to sit on," Smith said. "Normally, the third seat is empty. Now here comes the hardest part of the flight—climbing this damn ladder to the wing."

Standing on top of the broad fuselage, the company plane's captain was ready to assist me with my parachute. The last strap buckled and cinched down on the harness, Smith continued his brief. "If for some reason we have to exit the aircraft, I'll release the canopy and, one by one, we'll crawl out onto the wing. Don't stand up, because the tail will get you, and don't go in front of the wing because you might hit the prop. Sort of dive off the wing from the back."

Exit the aircraft—sort of dive off! How nicely put. Here I was thinking about where I was going to put my camera bag, and this guy is talking in terms of jumping out of an airplane into thin air!

My sudden fear was being overtaken by events. The crew chief nudged me

Smith banks hard left and heads for the barn after the 60-minute demonstration flight with LCDR Chicoine.

the IMITATOR

into my seat behind the student. As I busied myself with stowing my camera bag and thinking about camera angles, the canopies closed and the intercom crackled to life. Smith and Chicoine were going through their checklist. I went through one of my own—life insurance paid up, beneficiary designated, will signed, etc., etc.

With a loud whine, then a puff of smoke, number one—the starboard engine—came to life. Just like the movies! Here I was in a WW II bomber with visions of "Twelve O'Clock High," "Thirty Seconds Over Tokyo," all the late night movies coming back to me.

Rodgers E. Smith, commercial pilot, and LCDR Rene Chicoine, his student, discuss their flight plan beside the Calspan's B-26.

Both engines purring, the plane rolled slowly away from the hangar. The journalist who was working on the Test Pilot School story stood on the apron and waved farewell. In my best aviator act, I gave him a thumbs up. I was off on another mission.

We paused at the end of the runway to do a quick power check and engine warm-up and await final clearance. Brakes released, the old bomber rolled smartly down the runway until we were airborne. The ground fell below quickly as we headed toward Chesapeake Bay. Smith started twisting the knobs of the variable control system as I fidgeted in my seat. I silently thanked whoever had the forethought to put a padded cushion on my cramped seat.

Smith brought me out of my B-grade movie syndrome. "These knobs control the onboard computers. The computers, in turn, give the student's controls different responses. We can do this because the student's controls are all fly-by-wire—in other words, are all electronic impulses to the servos. Mine are purely mechanical. I can take over anytime by flicking this switch on my stick or setting the automatic cut-out in case the student does something drastic."

I asked him what the computers do to give the student's controls the various "feels"—as if he were flying another plane. Smith's first explanation sounded like shop talk for aeronautical engineers and astronauts, so I asked for a layman's answer.

Below: With a last glance at the panel and overhead instruments, Smith prepares to turn over the controls to his student.

the IMITATOR

"The student's controls are linked directly to the computers in the bomb bay, from the computers to the various servos in the wings and tail. These knobs to the left of my instrument panel program the computers to give different responses to the student's controls.

"By turning these knobs to various increments, I can tell the computers to speed up the response to the student's stick or slow it down. Along with the different response time, the computers also give the stick a different feel mechanically to the student as far as movement is concerned.

"In various aircraft, the stick movement is hard or easy depending on which aircraft it is. In order to set up for the response of, say, an A-6, I check my chart for the preprogrammed information and set the dials accordingly. To the student, it's just like flying an A-6, only you don't have the performance and speed."

From my seat I couldn't tell any difference in the control response. All the student was doing was putting the plane into a shallow dive or slight climb and letting go of the stick to judge how long it took to come back to level flight.

As Smith and Chicoine talked aviation, I busied myself with taking pictures. This became rather boring because the only two camera angles I had showed the back of their heads. The smooth ride, lack of activity, the sunlight warming the cockpit and the droning of the engines lulled me into a near snooze.

Suddenly the port wing dipped toward the earth, jarring me into trying to remember what Smith had said about crawling out on the wing and leaving what seemed to me a perfectly good airplane. I had the whole procedure down pat when he broke my train of thought. "Our time is just about up,

so we're heading back toward the field. Anything else you want to see or know?"

Fumbling from drowsiness, I asked him the range of aircraft types that the plane can duplicate.

His explanation was interrupted by the tower giving us clearance to land. Heading into the wind, he put the gear down, watching for the down and locked indicator lights.

The ground grew closer and closer until the tires hit the pavement, smoked once, twice and began to roll.

Left: Smith emphasizes a point while explaining the next aerobatic maneuver to LCDR Chicoine during airborne instruction in the B-26. Below: PH1 Terry Mitchell—visions of "Twelve O'Clock High."

Turning off the duty runway, we taxied back toward the hangar, the engines idling like only big reciprocal engines do with their erratic bass notes.

The plane captain was waiting on the apron to guide the plane to the parking spot. In a series of bulldozer-like maneuvers, Smith jockied the plane to the spot and shut down the engines.

Unbuckling his safety straps and parachute, he turned to answer my earlier question.

"This plane can be many planes, starting, of course, with a B-26. But it will also duplicate the feel of other piston planes and a lot of the jets. Actually, the system is so sophisticated, it can also duplicate the feel of the space shuttle."

With that, the canopy opened, bringing in cool air and the plane captain's beaming face. I was the first one out—not by choice but by convenience. The student pilot would have to step on my seat to get out. Again on the fuselage, I quickly shed the parachute harness and retrieved my camera gear.

At the bottom of the rickety ladder, the journalist was waiting for my report. "How was it?" he asked.

Nonchalantly, I said it was nothing. In the bluster of the moment, I described our maneuvers as all we aviators do by using my hands while walking toward the hangar. The journalist was impressed by my expertise. ⚓

FOUNDER OF THE SEABEES

Admiral Ben Moreell (1892-1978)

Retired Admiral Ben Moreell, "Father of the Seabees" and the personification of their "Can Do" motto, died on July 30, in a Pittsburgh, Pa., hospital. He was 85.

Admiral Moreell distinguished himself during World War II when he commanded the 258,000-strong Construction Battalions known as the Seabees. Foreseeing the necessity for military construction personnel who would be able to drop their tools and take up weapons at a moment's notice, ADM Moreell established the Seabees in March 1942.

Under his command, the Seabees built advance bases, barracks, roads, drydocks, airfields and naval repair facilities in all theaters of the war and were among the first waves of assault troops in amphibious operations. The Seabees have played a role in every major military engagement since World War II.

ADM Moreell was chief of the Bureau of Yards and Docks and the Civil Engineer Corps from 1937 until late 1945, when he was appointed Chief of the Material Division, Office of the Assistant Secretary of the Navy. In October 1945, after the federal government seized control of the nation's petroleum industry following a nationwide strike, President Truman placed the admiral in charge of a major portion of the petroleum industry. In May 1946, following a government seizure of the nation's strikebound bituminous coal industry, he was designated by the President to be the Coal Mines Administrator.

In June 1946, Moreell became the first non-graduate of the Naval Academy since the Academy's founding to be appointed to the rank of full admiral. In recognition of his outstanding naval service, ADM Moreell was awarded, among other war-service medals, the Legion of Merit; the Navy Distinguished Service Medal (two awards); and the Order of the British Empire, Honorary Commander, Military Division.

Since his retirement from active naval service on Oct. 1, 1946, ADM Moreell held numerous positions at the corporate level of several major companies in private industry. His many civilian accomplishments include numerous awards, medals, honorary degrees and selection by the American Society of Civil Engineers as one of the 10 men who have contributed the most to the advancement of construction methods in the United States during the past 50 years. In 1977, he received the "President's Award" from the American Society of Civil Engineers for "distinguished service to his country in times of war and peace."

In 1968, ADM Moreell donated his collection of trophies, artifacts and other memorabilia to the Naval Construction Battalion Center at Port Hueneme, Calif., where they are housed in the Moreell wing of the Civil Engineer Corps/Seabee Museum. He also donated his personal library of books and historic documents to the Naval School, Civil Engineer Corps Officers, at the same station, where they are housed in the Moreell Library.

When asked which of his honors meant the most to him, ADM Moreell replied: "They are all very meaningful and deeply appreciated by me. I accepted all with pride and humility. The following excerpt from the citation for the Distinguished Service Medal presented in 1945 for World War II service gives me the greatest sense of a job 'well done':

'Displaying great originality and exceptional capacity for bold innovation, he inspired in his subordinates a degree of loyalty and devotion to duty outstanding in the Naval Service, to the end that the Fleet received support in degree and kind unprecedented in the history of naval warfare.' "

Above: ADM Moreell discusses WW II Normandy invasion plans with LT Harry Stevens Jr.

In addition to his other accomplishments, ADM Moreell was also the author of several books, among which are: *Standards of Design in Concrete; Our Nation's Water Resources—Policies and Politics; The Admiral's Log: God, Man, Rights, Government;* and *The Admiral's Log II: In Search of Freedom.*

Surviving ADM Moreell are his wife Jessie, daughters Marion M. Jordan and Patricia Moreell and three grandchildren. He was interred at Arlington National Cemetery on Aug. 3. ⚓

Navy Recruiting Command

SEMINAR

BY JO2 DAVIDA MATTHEWS
PHOTOS BY PH1 TERRY MITCHELL

"I met one teacher who thought blacks were still limited to the steward rating," said Radioman First Class Allen L. Kinney. "When kids go to people like that for advice, they get the wrong story. It's important that they know about the Navy's opportunities for minorities."

"When I joined the Navy 13 years ago," Mess Management Specialist First Class Angel Fernandez Jr. said, "I didn't know I was signing on for a career. I like my work and enjoy telling people about it, especially when it might help young people make career decisions that will affect the rest of their lives."

Kinney and Fernandez are taking part in a Navy Recruiting Command (CRUITCOM) program called SEMINAR (Senior Minority Assistance to Recruiting). When funding is available, minority senior petty officers (E–6 through E–9) and minority officers (W–2 through O–6) who meet certain requirements are assigned to recruiting districts near their hometowns for 10 days' temporary duty (TEMDU) as part of their normal rotation between duty assignments.

SEMINAR grew out of the need to reach adults in minority communities who, for the most part, were unaware of or unimpressed by Navy career opportunities. Through this program, high school and college teachers, counselors, administrators and community leaders are given the opportunity to meet with a mature, successful minority member who has made the Navy a career.

"Many people who influence the career decisions of young men and women are not aware that opportunities for minorities in the Navy are unlimited," explained Lieutenant Martha Milligan, head of CRUITCOM's recruiting assistance programs. "Some have only the

Left: After meeting with school officials, Kinney takes time out to talk with a student from Central Senior High School in Maryland.

memory of when they served in the military, back before things began to change. We can't erase that memory but we can try to change their attitude.

"In a sense, we are 'showing off' our career Navy men and women," LT Milligan continued. "With SEMINAR, we have a living example to present to a community. In many cases, it's someone they know and trust, or at least someone they can relate to because the SEMINAR volunteer's background is in the community."

In FY 77, 166 people—142 enlisted, 20 junior officers and four senior officers—participated in SEMINAR. "Since their primary function is not direct recruitment, we have no enlistment figures to demonstrate the effectiveness of the program," LT Milligan said. "We feel that the glowing reports from recruiters who have worked with our volunteers and the many letters of recommendation from communities where they have visited are proof of SEMINAR's success."

To participate, volunteers must be recommended by their commands and meet certain qualifications. TEMDU orders, included in permanent change of station (PCS) orders, authorize per diem for the 10-day period and travel to the assigned recruiting district while enroute to the new duty station.

Kinney was stationed at Naval Facility, Eleuthera, Bahamas, preparing for transfer to USS *Farragut* (DDG 37) when he was contacted about the program. He agreed to help recruiters in District Heights, Md., not far from Clinton, Md., where his family resides.

As soon as the District Heights' recruiters learned of Kinney's availability, they began contacting area schools and civic organizations to set up appointments with key people. "Advance planning is important," LT Milligan said. "Recruiters recognize

Below: With a recruiter close by to help if he needs it, Kinney explains a Navy program to students at Central Senior High during their lunch break.

the value of having a SEMINAR participant onboard. Since the time is so short, they must take full advantage of every day.

"The schedule they set up is tailored to suit the individual," she said. "For example, if the SEMINAR participant is athletically inclined—perhaps a local sports hero in his youth— recruiters will arrange meetings with area coaches."

Even with a busy schedule, Kinney found time to field questions from students at the schools he visited. Often, after meeting with a counselor or teacher, he would be asked to speak to an ROTC unit or senior class. If his appointment with a school official was close to lunchtime, he would arrange to come early or stay afterwards to talk with students on their noon break. It's this extra effort that earns them praise from recruiters.

"Fernandez had a flair for public speaking and we took advantage of it," said Senior Chief Marion Fowell, coordinator for the San Francisco/San Jose recruiting area. "Part of his schedule during the 10 days he spent with us included speaking engagements at 22 different schools. He fulfilled every commitment we made for him, then worked extra hours on his own to reach other adults in the community."

Fernandez, who is now stationed at Naval Support Activity, New Orleans, La., came straight from USS *Enterprise* (CVN 65) to SEMINAR duty in San Jose, his hometown.

"One of the first things I would tell these people is, 'Hey look, I'm not a recruiter. I'm not here to get anybody to sign on the dotted line,' " Fernandez said. "When we got on the same wavelength and I felt they trusted me, I would tell them about my background in the community, how I felt about the Navy and how I overcame many of the obstacles that they, their children and the children they influence face. Whenever a question about a specific program or area came up, a recruiter was always nearby to supply an answer."

If they are given the opportunity, both men intend to volunteer for SEMINAR again. "The 10 days I spent in this program were long, busy and challenging but extremely rewarding," Fernandez said. "It's a good feeling knowing that you've done something that has a positive effect on the thinking of a lot of people."

"I've been in the Navy for 17 years," Kinney said, "But I can still remember the confusion and uncertainty I felt about my future when I was in high school. I joined the Navy right after graduation and have never regretted it.

"I don't feel like I have to 'sell' the Navy to these people," he said. "All I tell them is how it was and is for me. That seems to be enough." ⚓

Left: Reaching the students with a straight story about the Navy is one of the objectives of the SEMINAR program, one that Kinney often does on a one-to-one basis.

Atlantic Fleet's Reserve

AVU 193

BY JO1 J. WANDRES

Above: USS Arizona *memorial at Pearl Harbor, photographed as the helo passes overhead on a filming run. Right: PHC Gerry Costello, in the door of an airborne helo, aims the camera at the ground for a panoramic view of Pearl Harbor. (Photos by PH3 William Flynn)*

Above: PH2 Lori Cohen gets close-up instruction in camera operation from PH3 William Flynn. (Photo by JO1 J. Wandres)

With a safety harness around his waist, Chief Photographer's Mate Gerry Costello inched toward the open hatch of the H–53 helicopter. The 100-knot wind whipped his flight suit and the roar of the helo's engine made conversation difficult.

Costello pointed the movie camera, anchored in a vibration-proof mount, toward the water below. He composed the picture in the viewfinder and pressed the shutter release. As the helo flew over Pearl Harbor's naval installations and the USS *Arizona* memorial, the panorama was recorded on film.

After the pass, Costello shouted to the pilot, "Let's do it again for insurance." The pilot acknowledged and put the helicopter into a tight bank for another pass. Minutes later Costello smiled, "That was a good take. Let's wrap it up."

Although four hours had elapsed from the time the helicopter took off to the time it landed, the scene would last no more than a few seconds in the latest film being produced by the Flying Filmmakers of the Atlantic Fleet's Reserve Audio-Visual Unit 193 (AVU 193).

However, this wasn't the only film being produced by the unit. Other projects included: "Survival Is For the Fittest," a training film for the Damage Control Command; an indoctrination film for managers and supervisors in the Naval Reserve program; and three short orientation films for Naval Reserve pilots to show them the approach paths of unfamiliar runways. The unit has also updated the Navy's classic safety film, "115 Volts—Deadly Shipmate," with a script written by an AVU 193 journalist.

The film-making unit, established in 1972 as the reserve counterpart to the Atlantic Fleet's Combat Camera Group, was based at the Naval Air Reserve Detachment, Floyd Bennett Field, Brooklyn, N.Y. In 1978, to meet fleet training needs, the unit was transferred to NAS, Willow Grove, Pa., with a detachment at Norfolk. A similar reserve unit, AVU 286, operates from Point Magu, Calif., with a detachment at San Diego.

In civilian life, many of the unit members work as cinematographers, photographers and freelance writers. Captain Arthur D. Ward, AVU 193 commanding officer, is president of a recording studio which has recorded the soundtracks of many Hollywood movies. Costello is a flight test photographer for an aircraft corporation. One of the unit's plankowners, PHC William R. Kinsley Jr., is an independent cinematographer and director with 22 years of active and reserve service.

"We're not exactly your typical 8 a.m. - 4:30 p.m. bunch of weekend warriors," said Kinsley. "We train hard and work long until the job gets done and the crew gets the final wrap."

Another unit member, Lori Starr Cohen, civilian freelance photographer and a Photographer's Mate Second Class, entered the reserve in 1973.

"I've always been interested in filmmaking," Cohen said. "The audio-visual unit seemed like an excellent place to get the training I needed." She added, "Besides, I like to travel."

Life for the Flying Filmmakers is not all work and no play. The unit has enjoyed liberty in many ports around the world including New Orleans, Bermuda, Italy, Spain, Puerto Rico, Hawaii.

RECENT REELS

Since 1972, Audio-Visual Unit 193 has produced numerous training and orientation films as well as slide presentations and videotape cassette training aids for the shipboard SITE program. Recent motion picture credits include:

- "Home for the Seabees." An orientation film showing the mission of the Navy's construction battalions during peacetime. The film was narrated by actor John Wayne, who starred in the 1942 movie "The Fighting Seabees"
- "International Naval Review." The unit shot many of the scenes for the Navy's spectacular review of tall ships in New York Harbor, July 4, 1976.
- "I Relieve You, Sir." A strikingly realistic, documentary-style training film based on the 1969 collision of the USS *Evans* (DE 1023) and the Australian aircraft carrier HMAS *Melbourne* (21). The film is used to train officers in proper ship handling procedures during emergencies.

Mail Buoy

Vietnam Riverine Warfare

Sir: Old river rats who served on the various riverine craft (PBR, PCF, ATC etc.) in Vietnam would probably disagree with the statement in the April 1978 issue that there was never a concentrated effort to deploy a division of riverine boats.

Patrol areas, particularly in the Delta, were located at considerable distances from main logistic centers. PCFs and PBRs "homeported" in Catlow on the coast would deploy to small river outposts on the upper reaches of the Bassac and Mekong rivers for three months.

The ability of all riverine craft to "deploy" on short notice to areas subject to enemy action, conduct offensive operations and then patrol that area for several months was a hallmark of riverine warfare in Vietnam.

Finally, it is safe to say that the offensive and patrol tactics employed by riverine craft in Vietnam were learned through experience. Riverine tactics were not obtainable from warfare publications.—LCDR R. B. Schrope, USN.

Oops!

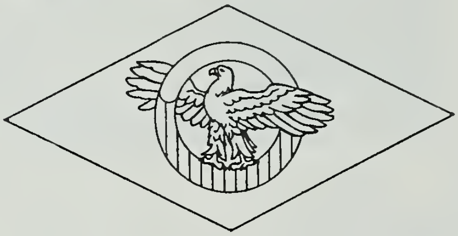
Sir: In reference to your article in the April issue entitled "Mugs Away," I would like to know if the darters in Sigonella are dwarfs. Never, in all my darting experience, have I seen a board 5′6″ from the floor. They have always been set with the center of the bull 5′8″ from the floor.—A Disgruntled Britisher.

- *'You're right. The distance from the center of the bull to the floor is 5′8″. We lost two inches somewhere between the writing department and the art department and didn't find them until we received your letter.*—Ed.

'Ruptured Duck'

Sir: A young lady walked into our recruiting office and presented us with two original sets of Navy blues, one of wool melton and one of gabardine. She said they had belonged to a member of her family who was in the Navy many years ago. Both uniforms had right-arm BM1 crows on them.

On the right breast, above the pocket, was the insignia shown here. Neither the BMC assigned to this office nor I have ever seen anything like it on any Navy uniform. Would you please identify it?—Joseph D. Carpenter, EW1, USN



- *The emblem the young lady brought to you is the Honorable Discharge Emblem—nicknamed the "Ruptured Duck" which was issued immediately after World War II. Enlisted personnel wore it on the right breast of their dress blues to indicate they had received an honorable discharge.*—Ed.

Is It Flying?

Sir: Concerning the April 1978 Issue of All Hands, I wonder about the photo of the FR-1 *Fireball* aircraft on the inside back cover. Why is the aircraft in flight with the landing gear retracted and the prop feathered?—D. E. Hess, PO2, USN

You posed an interesting question. An aviation expert offered the following possible explanations:

- *In training, pilots will cut engines to simulate an emergency situation.*
- *"Fast" film (film shot at better than 1/500th of a second) can create the illusion the plane is just sitting in mid-air (i.e., unmoving prop).*
- *Technically, it is possible to have the prop "feathered."*—Ed.

Sub Veteran

Sir: Back in November 1976, you ran an article in All Hands on Willard R. Clewell, "possibly the oldest living submariner in the U.S."

Because of your interest, I am forwarding a copy of his obituary [reprinted below] from the *Call/Weekender,* Allentown, Pa., July 29, 1978.—ECMC (SS) M. F. Schaffer, USNR-R, U.S. Submarine Veterans WW II, President, Lehigh Valley Chapter, Allentown, Pa.

Willard Stanley Clewell Sr., 89, of 1107 Lehigh Parkway East, Allentown, a former master mechanic at Lehigh University and reportedly the Navy's oldest submarine veteran, died Friday in the Allentown and Sacred Heart Hospital Center.

Clewell built high precision instruments for the university over a 34-year period before retiring in 1963.

He first served in the Navy 1908-22, including World War I, was in the Reserves 1922-38, and was recalled to active duty 1942-46. He was a chief machinist's mate during both wars, serving as a gyroscope technician in World War II.

According to an old newspaper account: "In 1908 he entered the Navy, and from that point on his life was one of high adventure on the sea. During the 14 years that he spent on and under the ocean, he served as a chief petty officer on every type of fighting ship afloat. . . He has traveled more than 5,000 miles under water, made over 300 dives while in the submarine service and has traveled 200,000 miles on the water."

Clewell was the husband of the late Virginia L. (Hitner) Clewell.

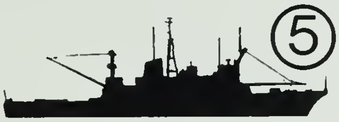
Born in Bethlehem, he was a son of the late Theodore R. and Fridena (Butz) Clewell.

Surviving is a son, Willard S. Clewell Jr. of Allentown.

Stern Shots

Fuel, food or help is usually on the way when you see one of these ships on the horizon. In the recognition quiz below, try to match the silhouettes with the correct ship types and hull designations.

⑤



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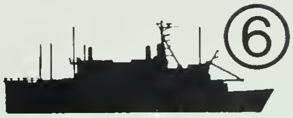

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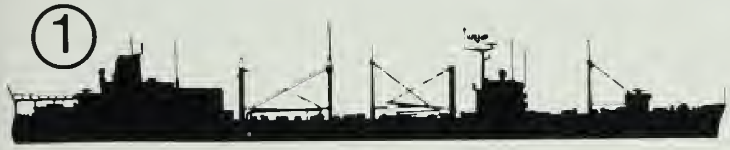

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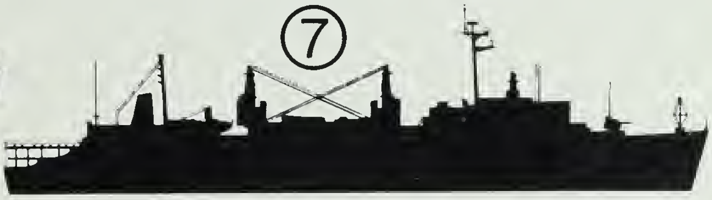

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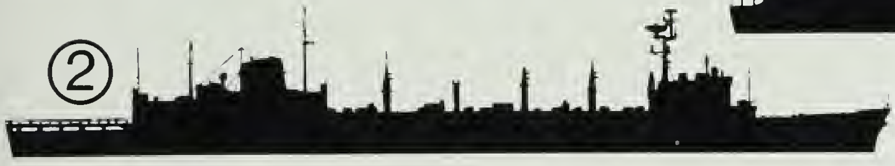

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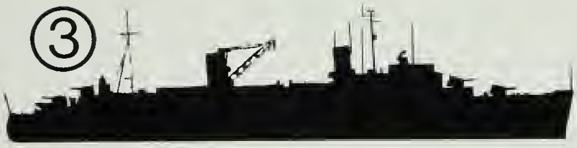

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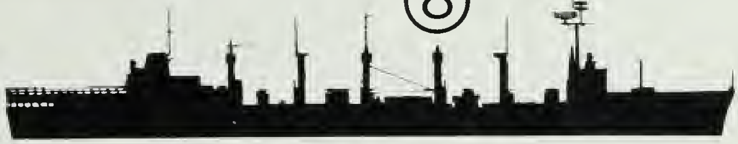

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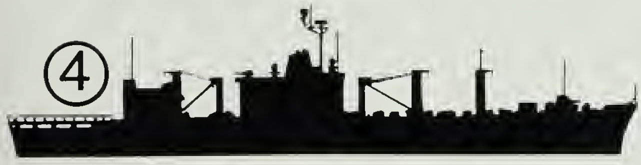

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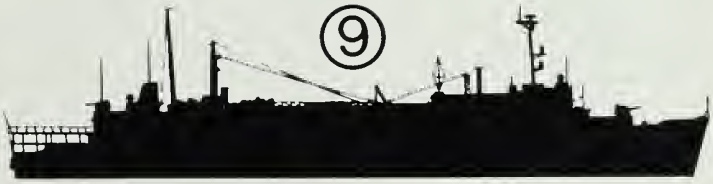

		Silhouette Number
A.	Combat Store Ship (AFS)	
B.	Oiler (AO)	
C.	Destroyer Tender (AD)	
D.	Fast Combat Support Ship (AOE)	
E.	Replenishment Oiler (AOR)	
F.	Repair Ship (AR)	
G.	Submarine Tender (AS)	
H.	Submarine Rescue Ship (ASR)	
I.	Salvage and Rescue Ship (ATS)	

Answers: A — 4; B — 1; C — 7; D — 2; E — 8; F — 3; G — 9; H — 6; I — 5

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Hispanic Heritage Week

September 10-16, 1978

ALL HANDS

OCTOBER 1978

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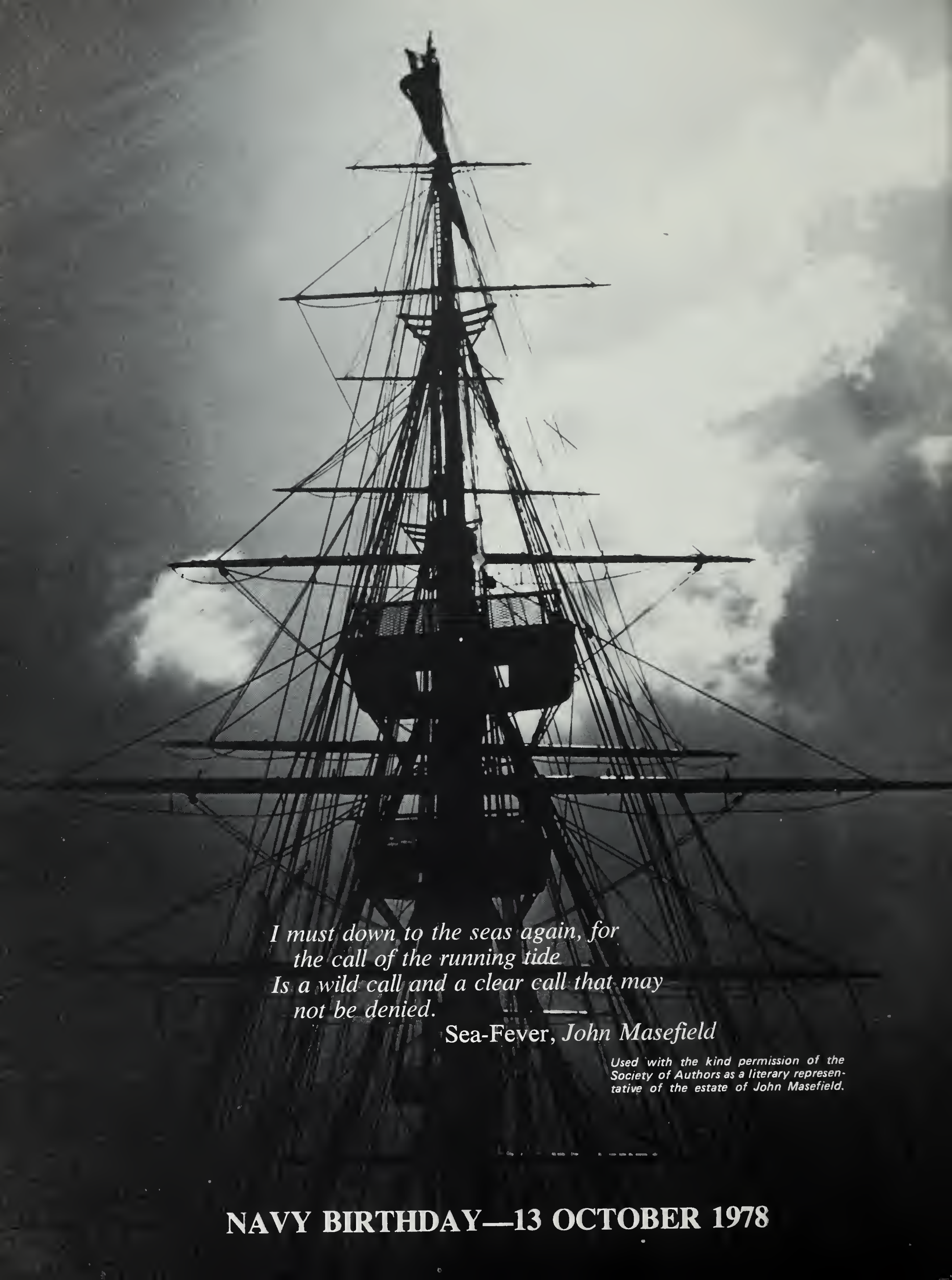

I must down to the seas again, for
the call of the running tide
Is a wild call and a clear call that may
not be denied.
Sea-Fever, *John Masefield*

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NAVY BIRTHDAY—13 OCTOBER 1978

ALL HANDS

MAGAZINE OF THE U.S. NAVY — 56th YEAR OF PUBLICATION
OCTOBER 1978 NUMBER 741

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Covers

Front: Colors shimmer through lenses at Chesapeake Bay's Thomas Point Light. Photo by PH1 Terry C. Mitchell.

Back: The old carrier *Intrepid* frames three other members of "Philly's Silent Navy." Photo by PH1 Terry C. Mitchell.

At left: Masts and rigging of the frigate USS *Constitution* as she stands today in Boston, a symbol of the Navy on its 203rd birthday. Photo by PH1 Richard Pendergist.

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Currents

PCS Travel Entitlements Expanded ● In the past, Navy personnel transferred to or from deployed units traveled at government expense directly to their next duty station. If they needed to travel through their new homeport to set up house, or their old one to pack out, it was done at their own expense. Not any more. As of Aug. 22, Navy personnel can travel at government expense to or from a deployed unit through their homeport or permanent station on the way to their new duty assignment. For example, a member assigned to a ship homeported in Norfolk, Va., who executes PCS orders to Naples, Italy, while the ship is inport in Barcelona, Spain, may be authorized travel to Naples via Norfolk at government expense. The change to the Joint Travel Regulations corrects an inequity suffered by Navy men and women ordered to and from deployed units.
Full details and implementing instructions are in NAVOP 98/78.

Navy Suggestion Program To Receive New Emphasis ● "We have only scratched the surface" of possible returns from the Navy suggestion program, Secretary of the Navy W. Graham Claytor Jr. reported in ALNAV 40/78. He said FY 77 savings of $57 million were not up to the program's potential. "We must take positive steps to effect measurable improvements in the suggestion program now," he stated. One of those steps is the creation of a Navy task force of military and civilian managers which will recommend ways to simplify the program. "This important program merits increased recognition, publicity and use at all echelons of command," Secretary Claytor said. "I enjoin all commanding officers and heads of activities to stress the advantages of this vital program." Details of the suggestion program are contained in SECNAVINST 1650.24A.

5.5 Percent Pay Increase Recommended By President ● The President has proposed a 5.5 percent pay increase effective Oct. 1 this year for military personnel and civilians employed by the federal government. The proposal means basic pay, subsistence allowance and quarters allowance each will be increased 5.5 percent. The President said there would be no reallocation from basic pay into the allowances. The 5.5 percent pay increase goes into effect unless either the House or Senate disapproves of the action before Oct. 1. According to law, the President must adjust the pay of military personnel and most federal government workers each year to keep it comparable with pay of civilians in the private sector. An 8.4 percent increase would keep the pay of military and federal employees comparable, but the President proposed the 5.5 percent increase to help halt inflation.

Many "A" School Openings For Fleet Sailors Next FY ● Although "A" school is designed primarily to train new recruits, more than 7,800 quotas are available during the upcoming fiscal year for Navy men and women already serving in the fleet. Those ratings with the highest number of quotas available to fleet personnel include: HM, AT, RM, AE, AD, OS, MS, ETN and ETR. Navy personnel desiring to apply for "A" school must meet the prerequisites outlined in the catalog of Navy training courses (NAVEDTRA 10500). A complete breakdown of "A" school quotas available and application procedures are contained in BUPERS Notice 1510 of Aug. 28, 1978.

SGLI Rates Reduced ● Monthly premiums for Servicemen's Group Life Insurance (SGLI) have been reduced due in large part to a lowering mortality rate among service members. New rate for persons with $20,000 coverage is $3 per month; for $15,000, $2.25 per month; for $10,000, $1.50 per month; and for $5,000, $.75 per month. Old rates were $3.40, $2.55, $1.70 and $.85, respectively. The new rates are retroactive to July, and will be reflected in the Leave and Earning Statements (LES).

Uniform Wear Test Status ● The Navy is distributing jumper style blue uniforms to selected fleet units as wear testing of the new uniforms continues. BUPERS also announced the Navy will no longer issue the service dress blue coat to recruits after Oct. 1. At that time, wear of the coat for paygrades E-1 through E-4 will become optional. Authorized seasonal uniforms for E-1 through E-4 after Oct. 1 will be winter blue, summer blue and summer white. Recruit issue of the jumper style uniform will begin on Oct. 1. 1980. Details of the change will be announced in an upcoming NAVOP. Wear testing of the women's new winter blue, summer blue and summer white uniforms is complete and materials are being selected. Wear testing of the new khaki uniform for female officers and CPOs, as well as coveralls for all women, will be completed on Sept. 1. Khaki uniforms should be available through the Navy Exchange next spring. Introduction of the coveralls will be announced after the results of the wear test are reviewed.

Stateside Furniture Delivery For Overseas Exchange Customers ● Navy men and women stationed overseas who have PCS orders to the U.S. now can purchase American manufactured furniture through the Navy Exchange for delivery in the Continental U.S. at government expense. Under a new procedure called the Furniture Drop-ship Program, the furniture will be counted as part of the household goods shipment and will be charged against the weight allowance. The program lets Navy Exchange customers special order furniture while attached to overseas duty stations, including Alaska and Hawaii. The Navy Exchange will ensure the furniture is shipped directly to the new stateside address. Further information is available from the special order departments of overseas Navy Exchanges.

On-Duty High School Studies Program Available ● The Navy has developed the Navy High School Studies Program (NHSSP) for Navy men and women assigned to afloat commands. It is an on-duty, fully funded education program designed to improve basic skills levels. Eligible personnel are those with skills levels below the 12th grade in English grammar and composition, reading, mathematics and science who, in the opinion of their commanding officers, can benefit from the program. Contractors – Florida Junior College for the Atlantic Fleet and Central Texas College for the Pacific Fleet – will provide instructors and materials for group or individual study free of charge to the student. The program is administered by the Chief of Naval Education and Training as an educational opportunity under the Navy Campus for Achievement. Organization of classes is the same as that now used under the PACE program. Requests from fleet units for courses may be submitted by letter or message to the Navy Campus Area Coordinator at the appropriate naval education and training support center, Atlantic or Pacific. Shore commands can receive assistance in organizing their basic skills development classes from their assigned Navy Campus education specialists.

Navy Dental Health Program

BY JO2 DAVEY MATTHEWS

The National Institute of Dental Research estimates that 98 percent of all Americans have tooth decay, beginning at an early age.

The average Navy recruit in 1974 had 5.4 decayed teeth. Nine hours of dental care would have been necessary to treat the dental disease found in each recruit. To complete this task, it would have taken over 40 percent of the entire Dental Corps' officer strength.

"If we were to do everything that was needed to be done to correct the dental conditions of recruits coming into the Navy today, it would involve many hours to complete the 29 different dental procedures each recruit requires," said Captain R. D. Ulrey, DC, USN, head of the Dental Corps professional branch. Dr. Ulrey based his figures on a survey conducted at Great Lakes in 1976.

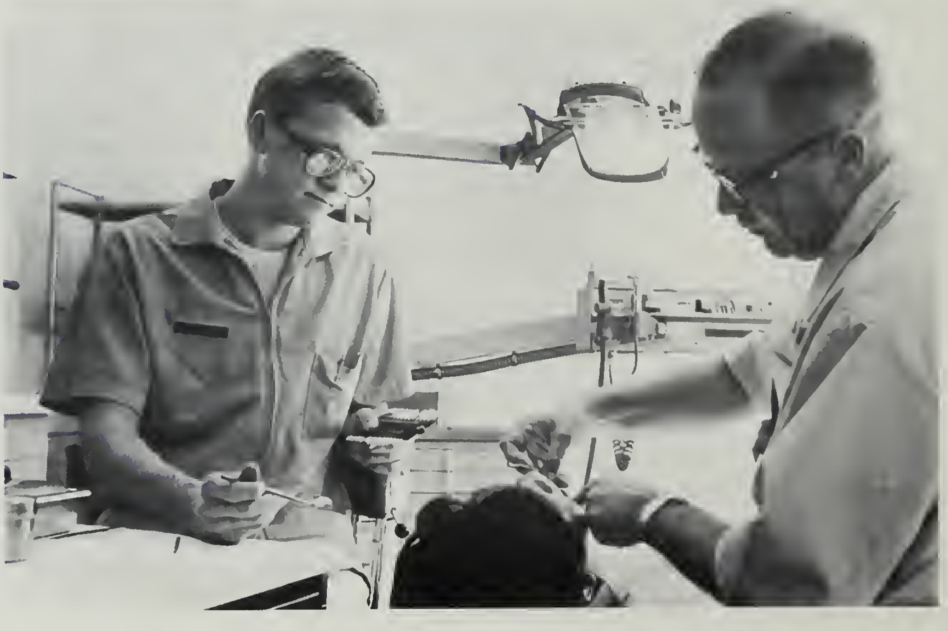
"It is no longer possible to get every recruit in Class I condition (requiring no further treatment) before he or she leaves boot camp," he said. "We just don't have the manpower to do it."

Dental health problems go back through the years. At the start of World War II, the rejection rate for dental defects was about 21 percent. "You can't fight a war without people so they had to lower the dental standards for entrance into the military," Dr. Ulrey explained. "Today, dental impairment accounts for about one-half of one percent of those rejected. We have studied the possibility of increasing entrance standards again, but with an All-Volunteer Force, the Navy cannot afford to turn away an otherwise eligible person just because his or her teeth may not be in the best condition."

Only those who have a severe malocclusion (irregular contact of opposing teeth in the upper and lower jaws) or are wearing active orthodontic appliances such as braces are restricted from entering the service. "Even those rulings are flexible to a certain extent," Dr. Ulrey said. "For the most part, it is left up to the examining dentist to decide the severity of the malocclusion and in a few select cases surgical correction can be achieved while on active duty."

Dental standards for officers and those going into specialized programs such as diving, aviation, nuclear or submarine are higher. "It's a matter of common sense," Dr. Ulrey explained. "There isn't time in a junior officer's schedule for extensive dental work. Submarines go on long patrols and don't have the facilities for dental care. If a diver cannot hold a breathing apparatus in his mouth because of the condition of his teeth, it's obvious that he is not suited for that job."

In boot camp, a recruit is screened and immediate dental problems are



Right: DT3 David Hiles assists dentist during oral exam. (Photos taken at San Diego Naval Regional Dental Clinic by PH2 Bob Weissleder.)

cared for. If additional treatment needs to be done, it is entered in his or her dental record for completion at the next duty station. The recruit also gets a lesson in preventive dentistry—one that will be reinforced throughout a naval career.

"When you consider the condition of these young people's mouths, it's not surprising to discover that they don't know how to brush or floss their teeth," Dr. Ulrey said. "Anytime we see a patient whose teeth are showing signs of neglect, we go over the preventive dentistry routine again in an attempt to reeducate their thinking—no matter if they have been in the Navy six months or six years."

Routine checkups are an important part of preventive dentistry. "We would like to give each active duty member an examination twice a year, but we just don't have the manpower," Dr. Ulrey explained. "We do conduct annual examinations and encourage patients to come in if a problem develops."

Computers may soon make it easier to remind patients that they should have annual dental checkups. "Someday we hope to feed all dental records into a computer system," he said. "Whenever an active duty member is due for an annual examination, a computer readout card will be sent automatically to his or her command. It is similar to the system used by our medical colleagues to inform members when they are due for certain inoculations."

Although active duty personnel receive dental examinations before reenlistment or discharge from the service, it is their responsibility to make follow-up appointments. After leaving active duty, a person can still have *certain* dental problems cared for by the Veterans Administration.

Veterans whose dental conditions or disabilities are service-connected but not compensable must apply to VA within one year after discharge or release from active duty. "For example, if you had teeth extracted during your last tour of duty, you could be fitted for a prosthetic appliance under the VA," CAPT Ulrey explained.

Veterans who meet one or more of the following stipulations may apply for VA-funded dental care within a longer time frame:

Left: DT2 Vicki Bryce prepares anesthetic.

- Have a dental condition or disability that is service-connected and compensable.
- Have a dental condition that is service-connected, resulting from combat wounds or service injuries, but not compensable (includes prisoners of war); or
- Have nonservice-connected dental conditions that are determined by VA to be associated with or aggravating a service-connected condition.

"Also, disabled veterans training under the Vocational Rehabilitation Act who need dental treatment may apply for care as needed," Dr. Ulrey explained. "The program is rather complex and it's best to check with a VA counselor for more information if you are about to leave the service or think you qualify for the dental care."

Many who stay in the service assume they will receive unlimited dental care when they retire. "I'm afraid it's a rude awakening when they discover that's not so," he said. "Dental care for retirees is available but the amount and type of care fluctuate from clinic to clinic. We do provide treatment for them, but only on a space-available basis."

First priority for care goes to active duty members; dependents and survivors of active duty members (when care is authorized) are second; retirees and their dependents and survivors come last.

This policy was established by a congressional act passed in 1956. It stated, in part, that retirees could obtain care in military facilities ". . . based upon the space and facilities and the capabilities of the medical and dental staff." The impact of this qualifying term was not felt until the 1960s, when the number of retirees increased at an unprecedented rate and their demands for care began to exceed the capabilities of military medical facilities.

"There are 2.1 million active duty members in the Department of Defense and dental treatment capabilities are based on that figure," Dr. Ulrey said. "The problem is that there are 1.1 million retirees vying for a dental care capability that just doesn't exist."

As part of their training, reserve dental units are providing dental care to retirees where possible. "However, these units have other commitments such as providing annual examinations for reservists," CAPT Ulrey explained. "They, too, are limited as to how many retirees they can treat."

CHAMPUS authorizes dental care for retirees and dependents only when it is a necessary part of medical or surgical treatment. That policy may change. CHAMPUS officials are studying the feasibility of some type of supplemental dental care program.

Normally, routine dental care for dependents is available only at overseas or certain designated locations in the United States on a space-available basis. "If it is an emergency, where relief of pain is involved, a dependent can go to any military dental facility and receive treatment. We also provide dental services if a dependent is under a physician's care and he (or she)

Right: DT3 Antonito Bradley shapes prosthetic device.

certifies, along with a consulting dentist, that dental care is a necessary part of treatment," the doctor explained.

"For example, a dependent develops oral cancer and has surgery to remove affected tissue. If there is a dental procedure that can aid the person after surgery, and we can provide it, that dependent is entitled to use military facilities."

The Navy also has a program that takes care of the dental needs of active duty members serving away from treatment facilities—i.e., recruiters, NROTC members, or active duty personnel attached to reserve units. A civilian dentist is contracted to take care of the essential needs of these people.

The dental health program tries to cover every need Navy men and women might have. "But we are hampered by a steady decline in the number of officers in the Dental Corps," Dr. Ulrey said.

Captain C. A. Brown, DC, who heads the personnel branch of the dental division, explains the problem.

"Currently, we have 1,704 billets to fill with only 1,634 dentists. If current trends continue, we will be short 50 or more dental officers by the end of this fiscal year and, perhaps, 300 or more by FY 81."

Many factors are contributing to this decline. When the draft ended, the Navy lost its primary source of dentists. In 1977, the dental portion of the Armed Forces Health Profession Scholarship Program was suspended, ending a vital source of quality personnel.

"In recruiting dentists, we have several negative factors we must deal with, including an increase in the amount of obligated service to three years and a slowdown in promotion opportunities," Dr. Brown said.

"We are concerned with the decrease in the quantity of dentists, but what is more important is that the maintenance of quality care may be affected if we cannot attract and retain highly qualified dentists. There are no simple solutions, but one must be found."

Dentists receive incentive or special pay under a provision of a law that expires this year. Congress is considering a proposal which, if passed, would continue special pay and bring it more in line with a civilian dentist's income. "Of course, this would be an asset to recruitment and retention of high quality dentists," Dr. Ulrey explained, "but there are many others to consider. In addition to opportunities for travel and no private practice administrative worries, Dental Corps officers have access to an advanced dental education program."

Such specialty fields as endodontics, oral surgery, prosthodontics and periodontics are open to Dental Corps officers. In addition, a limited number of dentists are given the opportunity to conduct research investigations.

"It's an extensive educational program—we are very proud of it," Dr. Ulrey said.

Enlisted dental technicians play a vital role in assisting dental officers in their daily practice.

Master Chief Dental Technician R. W. Mast, head of the Dental Technician section of the professional branch, reports that the number of dental technicians in the Navy is on the upswing "with full quotas at all the schools." In addition to the basic class "A" school, six class "C" schools in four specialties are available to dental technicians during their careers.

"We are relying more and more on dental technicians and we want to make sure they get all the training we can possibly give them," Dr. Ulrey said.

From its inception, the Navy Dental Corps has grown in professional standing in terms of more and better dental care, improved educational opportunities and the ability to conduct research programs related to the clinical needs of Navy and Marine Corps personnel. There is optimism about the state of the Dental Corps today that stems from dual reasons; the steadily improving capabilities and the people who make it go. They are the single greatest reason for confidence in the Dental Corps' ability to meet their responsibilities today. There still are many problems to be faced, but the Navy is determined to keep the quality—and caring—in its dental care program. ⚓

Advanced Energy Utilization Test Bed

As part of the Navy's overall program to develop new sources of energy and new conservation methods, a unique project was started last year at the Civil Engineering Laboratory at Port Hueneme, Calif. Ultimate goal is to make the Navy more independent of commercial energy sources.

Known as the Advanced Energy Utilization Test Bed (AEUTB), it is the only site in the country designed and built solely to monitor and evaluate energy efficiency.

Scientists at Port Hueneme are attacking the problem of energy use from two angles—augmenting conventional power sources (gas, oil, etc.) with solar and/or wind power, and incorporating energy-saving devices, practices and techniques. In the end, CEL scientists will be able to determine which sources or devices are best suited for use by the Navy.

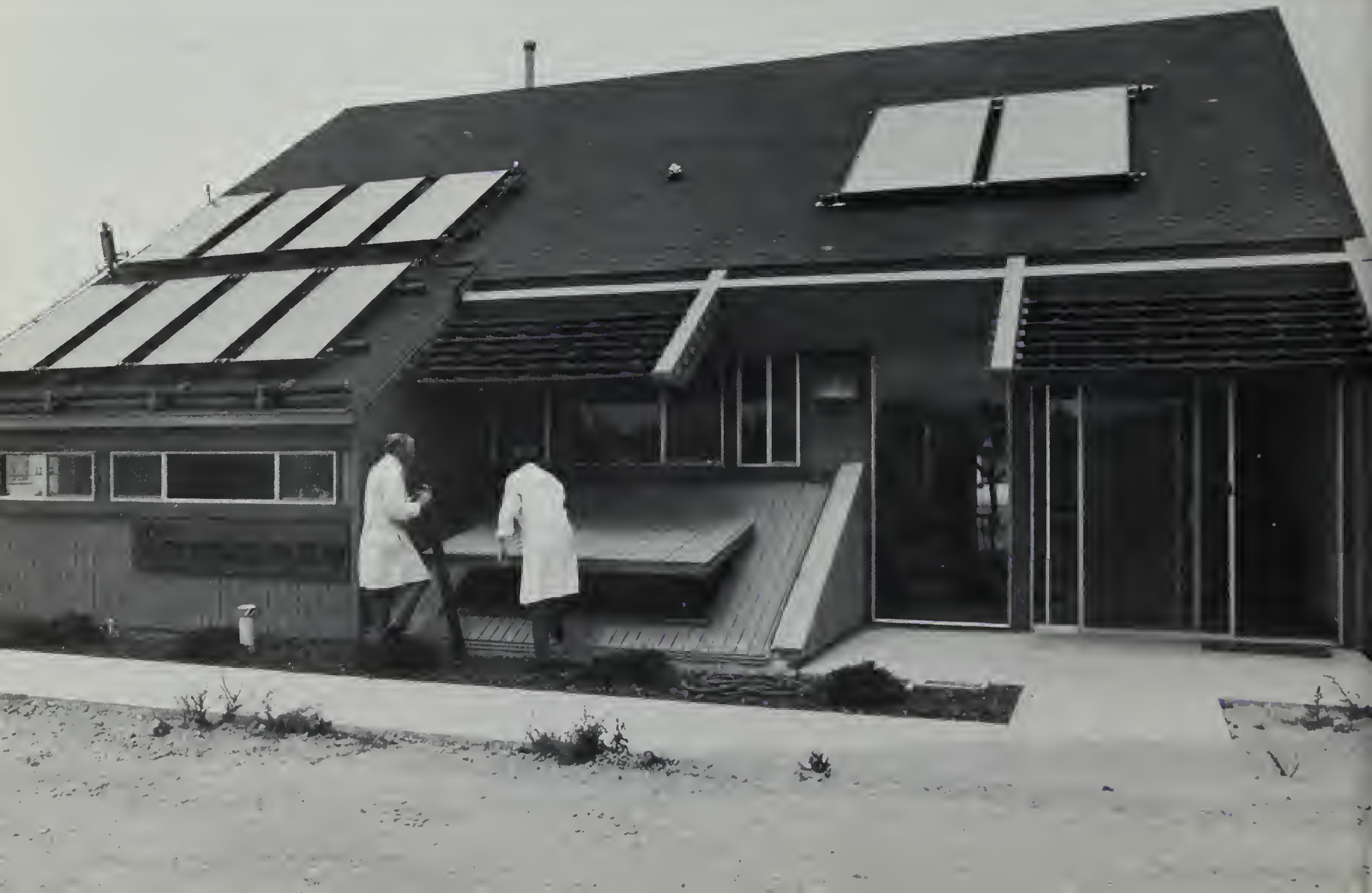
At the test bed, both approaches may be tested simultaneously. By incorporating new energy concepts, testing and applying them to Navy needs, CEL scientists hope to arrive at an ideal power source and method of use for any type of building used by the Navy today.

The AEUTB can be configured differently. One day its 1,350 square feet of space can be arranged into office spaces. By adjusting movable walls and ceilings, the space can be transformed into a medical facility or a typical family housing unit equipped with hot and cold running water.

Another unique feature of the test bed is the adaptability of its energy-consuming systems. They can be powered by any of the three available sources—commercial, solar and wind—or by any combination.

By switching from one source to another, or by trying different combinations, Navy scientists can monitor

Below: The test bed with 10 solar collectors on roof. Eight are used for heating and cooling; two are for hot water. Photos by PH3 Richard Homesly.



and compare each source's efficiency, either individually or in conjunction with other sources or methods of conservation.

Scientists, for example, may ask, "Should we supplement a conventionally powered heating system with a solar heating system, or will a solar heating system combined with good insulation work just as well? Which will cost less?" With the AEUTB, the scientists can try both to find out accurately which is better. The questions they actually ask, however, are more complicated. Many will take time to answer.

Within five years, it is expected the scientists will be able to fine-tune the systems and integrations to such a point that the test bed will be as energy self-sufficient as they can possibly make it. With the aid of computer programs, they plan to apply results of their studies in California to other Navy areas involving different climates.

Because the project is still in the research stage, few definitive answers have been forthcoming. This is not to say there has not been significant progress. The researchers have installed complicated instruments which, in time, will tell them how much energy enters the AEUTB, how much is used and where the remainder escapes. From that point, technicians can develop ways to reduce energy losses.

When the research finally is complete, the Civil Engineering Laboratory will make recommendations to the Navy concerning the use of solar energy, wind power, cost-effective construction and lighting techniques, heating and cooling systems and control and monitoring devices.

Hopefully, the findings will result in a large reduction in the Navy's energy bill. Eventually, such savings could be passed on for more mission-minded purposes to supply energy for use by Navy's sea and air forces. ⚓

Left: Technician John Curry checks flow meter and pressure gauge leading to solar heating system. Below: Engineer John Durlak takes reading off automatic data logger. Hourly readings record 20 channels of information.

Above: Curry applies finishing touches to insulation around 300-gallon hot water tank, heated by solar collectors mounted on roof directly above.

Grains of Salt

Birth of the 'figure-8' rope

BY LT TOM WESTERLIN

There are times, even in a technological world, when the simplest approach is the best. Today's Navy, by the nature of its weaponry, is increasingly dependent upon ever more sophisticated control and informational systems.

Nevertheless, simplicity became the watchword among a few of us who were with Underwater Demolition Teams on islands off Fort Pierce, Fla., in World War II.

Those were the early years of underwater demolition in the United States Navy. A few teams had been trained and shipped out to the Pacific theater where they blasted through coral reefs and man-made obstacles to clear the way for landing craft.

In a typical UDT operation in those days, the teams disembarked from their ship at night into landing craft, which took them to within a mile or so off the enemy beach. There, they slipped into rubber boats which they paddled to the reef or obstacles.

The uniform of the day was face mask, flippers, swim trunks, one or more 20-pound backpacks of tetritol, Primacord to link the charges for one blast, and a sheath knife for chance encounters. One man was responsible for carrying percussion caps or detonators, safety fuse and fuse lighters, and waterproofing—usually a supply of rubber balloons.

Setting and tying charges could take all night, so it might be dawn when the last man pulled the fuse lighter. The others had by then swum offshore a distance and were spaced out in a line to be taken aboard landing craft.

This phase was tricky, for the enemy

would be alerted by the blast and would lob mortar shells at the retrieval boats. The boats were comparatively easy targets because the coxswain had to stop for each man and maneuver to get him close alongside so he could be hauled aboard. At each stop the danger increased because the enemy's range improved and there were more men aboard the boat.

The problem was to find a way to get the men aboard the landing craft and out of mortar range quickly. It was clear the men must be recovered while the boats were under way.

This problem was given to Ensign Wade Theye and me. We were tucked away in a segment of demolition called research and development. We found ourselves carrying scientists, military brass and dignitaries in our small boat to observe exotic methods tried out to clear passages through reefs and destroy obstacles. At the time, the Nazis—to ward off invasions at the beaches—were ringing Europe with horned scullies, steel rails imbedded underwater in concrete at angles guaranteed to disembowel landing craft.

We tested a cumbersome gadget—called the Reddy Fox—a long explosive-filled tube which was secured to the bow of a small boat and pushed over a reef before being detonated. The theory was fine but, in practice, maneuvering a boat in breakers with a 75- to 100-foot tube strung out like a waterlogged bowsprit was next to impossible.

At another time, we stood in water while various underwater charges were detonated at varying distances. The object was to determine human tolerances. Our prayer was to survive with all our faculties unimpaired.

We dallied, too, with radio-controlled boats. Once, a drone, loaded with 8,000 pounds of tetritol, refused to obey the frantic wigglings of the switches on the control box and ran amuck, abandoning its target and pursuing us, in the mother boat, like a lovesick but highly dangerous walrus.

And, finally, as if to convince us that Thoreau's injunction to simplify should be our motto, we took part in a demonstration of mass bombing off the beach north of Fort Pierce, Fla. Our role was passive, we were spectators; but we were only a hundred yards or so off the beach, uncomfortably close to the scores of bombs that soon would rain down from highflying planes. Our only consolation was that we were in the midst of a small flotilla of landing craft bearing more admirals and generals than we ever imagined the Allies had on their roster. Surely, we prayed, the bombardiers wouldn't dare push their buttons too soon. They didn't.

The chaos ashore was deafening, impressive, but not convincing, because the bomb craters were as effective as the stubbornly surviving horned scullies in making the beach impassable.

By the time we inherited the problem of retrieving swimmers, Wade and I were cynics about complexity in combat. With my boat crew—Smitty, whose foghorn voice alerted all within sight, Bone, skilled at wheel and throttle, and our motor "mech" who read our diesel's health by its pulse—we set to work.

For starters, we secured a five-man rubber boat off the port side of the retrieval boat. Then we mounted a concoction of pipe and swivel onto a swinging arm on the gunwale. At the outer end, we slung a bight of manila line. The idea was for the swimmer to grasp the bight and be swung aboard by the boat's momentum.

It didn't work. Sometimes the swimmers were slammed into the side of our boat. At other times, breakers careened our craft to starboard, lifting the rope out of reach.

Over a supply of beer ashore, we reconsidered. The pipe arrangement had to go. Why not station a man in the bow of the rubber boat? Why not give him a spliced figure-eight rope? Any demo man is a lot more versatile than a pile of pipe, we agreed.

Next day we gave it a trial run. It worked beautifully. The experiment was a success! I cannot reproduce the chorus of joyful profanity that rose among us as body after glistening body was torn from the waves and dumped into a churning mass of shouting men fighting to get aboard our craft.

Simplicity sounds suspiciously like common sense—in retrospect. But the figure-eight rope worked, and a version of it still does today. At the heart of it all, simplicity was our watchword in those early days of UDT. ⚓

Life in the Light

BY JO1 DAN WHEELER
PHOTOS BY PH1 TERRY MITCHELL

Late one winter night more than a century ago, the Chesapeake Bay winds died and the temperature plunged into the 'teens. The two men off watch awakened around first light to the report of cracking ice as it crawled over the shoal and splintered into floes. Screw piles and beams screaked their resistance as the ice pushed and shoved its way past the lighthouse and out to sea.

In a wooden tower about 40 feet above the shoal, a brass kerosene lantern and the French-made lens it served both shuddered and tumbled to the deck. Months passed before the light shone again. Below the light, the lone keeper on watch balanced himself on slippery beams and chipped ice from the frozen pilings. Ice was a weight hazard that keepers—like sailors—were loathe to tolerate.

The freeze of 1877 had set in. Thomas Point Lighthouse was embedded in ice just as it has been at least once every winter since it was built. Originally, the light had been placed on land (1825) and had served well until the shoal grew too far into the bay and became a hazard to navigation. After years of deliberation, the Lighthouse Board decided to move the light to the tip of the shoal, about two miles into the bay. When the light was damaged in 1877, the facility was temporarily moved back to the shore until the lens could be repaired.

In 1880, to guard against vibrations damaging the lens again and to protect the house from the fury of the winter sea, two piles of rocks were dumped next to the structure. Still, each successive generation of keepers had to hack ice from her screw pile stilts, polish her lens and keep their vigil while awaiting their reliefs.

"I don't suspect lighthouse duty—at least at this light—has changed much over the years," said Coast Guard Fireman Apprentice Edward O. Foster, one of four men stationed in the hexagonal, wood-frame lighthouse. "Sure, technology has altered some of our procedures, but we still stand around-the-clock watches, report the weather, are relieved every two weeks, and get just as lonesome as the oldtimers did."

So forget everything Hollywood has produced about lighthouse duty: the bespectacled old men with an affinity for rocking chairs, curved pipes and sea stories. Forget the Hardy Boys and their trips to haunted lighthouses and *Three Skeleton Key* with its man-eating Norwegian rats. Lighthouse duty is not thrilling; keepers are no longer old men; there are no ghosts that moan on soupy nights; and rats don't scurry and scratch from dusk to dawn.

Lighthouse duty is tedious and boring but necessary.

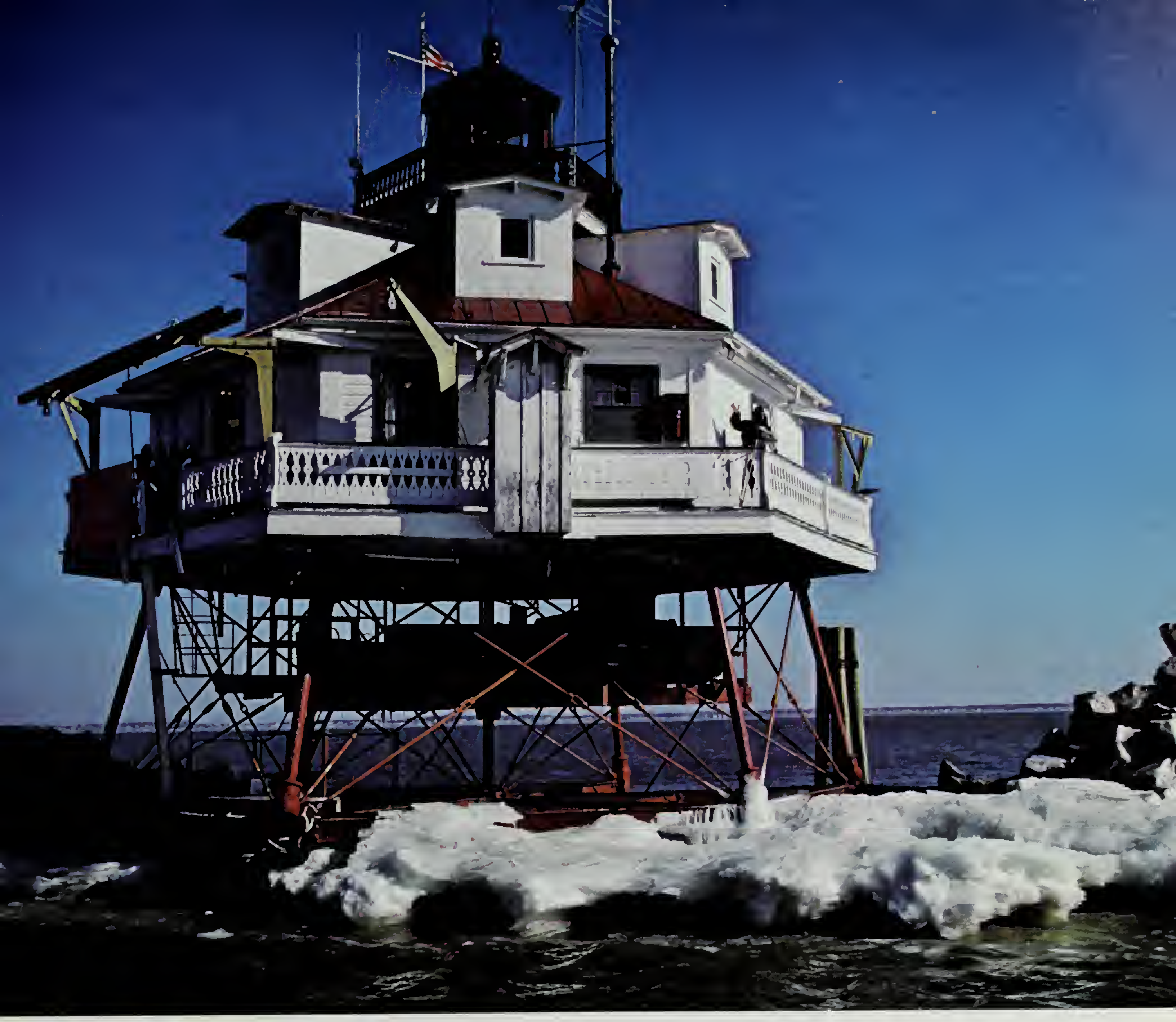
Thomas Point Light's main purpose is to be that proverbial "beacon in the night" which ships can use as a reference point in navigation. Of course, it also marks the area of the shoal—shallow water ranging in depth from about 15 to three feet or less. The light itself, with the original lens, is a 250-watt lightbulb which generates 6,000 candle power and can be seen for 12 miles. If the bulb fails—and no replacement is available—the 150-year-old kerosene lantern is called back into service and all ships in the area are notified that Thomas Point Light will not be flashing at its normal six-second interval.

Thomas Point Light also provides a radio beacon calibrating service for commercial and military vessels.

Keepers' duties are fairly cut and dried. They report the weather conditions in the bay to Coast Guard Station Annapolis, which relays the information to other shore stations, ships and radio stations. Keepers monitor the movement of aids to navigation such as buoys and they report changes in position. The traditional duties of maintaining the light, ensuring it is on during periods of low visibility and operating the foghorn are also performed. Simple though the duties are, they are invaluable.

The Coast Guard acquired Thomas Point Light in 1939; it is one of 453 they maintain, 75 of which are manned. The vast majority of lighthouses are automated for economical reasons. Thomas Point Light was slated to be one of them before it was entered in the National Register of Historical Places by executive order in 1975, virtually assuring that it will be maintained in its original configuration and manned for as long as it stands.

"We try to maintain the original look outside and inside, too, wherever practical," said Boatswain's Mate First Class R. C. Owens, the officer in charge. "However, I'm not 103 years old and I don't want to cope with the inconveniences that 19th century keepers endured. Keeping the outside in mint condition is OK, but I can't see



Above: Located about two miles from shore, the Thomas Point Lighthouse in the Chesapeake Bay has been a beacon in the night for more than a century. Left: FA Edward O. Foster demonstrates one of his many duties—washing the dishes dirtied on his watch.

restricting us to living conditions inside that are inferior. We have made a lot of improvements inside such as installing a modern kitchen, a trash compactor, overhead heaters and toilet facilities—the outhouse is now used as a paint locker."

According to the executive order, the Coast Guard can modernize the interior, but the exterior must remain exactly as it was when built. Further, all outside work must be performed with hand tools. These restrictions present few problems since the six-inch-thick outer walls require a coat of paint only every several years.

And the paint glistens from upkeep. The keepers see to that because 90 percent of their drinking water is drained off the roof into four, 300-gallon storage tanks.

"When we know it's going to rain," said Fireman Apprentice Donald Franklin, "we get all of our laundry done, take normal showers, and otherwise use water freely so we can empty the tanks to make room for fresh water. When it's not raining, we all work together to keep the gulls off the roof—we don't want them messing up our water."

As unsanitary and primitive as it

Right: FA Foster hacks ice away from the lighthouse's beams. If allowed to accumulate, the ice would soon put too much extra weight on the stanchions. Below: FA Donald Franklin climbs the spiral staircase leading to the light.

may sound, the water-gathering system is efficient and sanitary. Water is treated with chemicals in the tanks, a compressor keeps it circulating to prevent stagnation, and a sample is sent to a biological laboratory weekly to ensure that it's clean.

"Even so," Foster said, "I don't like to drink it—it tastes funny to me. Also, it makes me itch for a few hours after I take a shower."

Sewage is also purified before being dumped. Trash and garbage are collected in the trash compactor and taken to shore each Wednesday when one of the three always on duty is relieved by the oncoming fourth.

Each of the men stands a 14-day, staggered rotation watch except the officer in charge. At the end of two weeks, one man is relieved for a week of compensatory absence (CA) and the man previously off returns. Owens doesn't get CA. He works a five-day

Left top: BM1 R. C. Owens, the officer in charge, makes some adjustments to the lighthouse equipment. Most of his day, however, is spent on paperwork necessary for supplies, maintenance and logs (below). Right top: FA Foster polishes the glass lenses of the light which magnify the intensity of the 250-watt bulb, thus generating 6,000 candle power.

week and goes home on Fridays via a regular Coast Guard run out of Station Annapolis.

"I guess the most frightening experience around here is when it's time for you to leave and Station Annapolis radios that the boat might not make her run due to high seas, thick ice or mechanical difficulties," Owens said. "I leave every weekend and stay on call, but the other men get so geared up to go home after two weeks of isolation that I don't think most could face another day."

On the whole, the duty is good. Each man is expected to clean up after himself, be sociable and do his job. "Anyone who was a mess at home and thinks he can be the same way out here won't last long," Owens said. "Sloppiness is the kind of thing that irritates people and we do everything possible to avoid irritants."

Over the years, the keepers have developed a system for minimizing

Clockwise from left: FA Foster puts the final touches on a plaque-polishing job outside the light tower. The original dedication plaque is still legible after 103 years. It says: "ATLANTIC STEAM ENGINE WORKS BROOKLYN N.Y. 1875." Three times a week, weather permitting, a small boat comes to the light from the Coast Guard Station ashore to transfer personnel and bring needed supplies.

friction. Rotation schedules are set up so that no man has to serve more than one week at a time with the same person (someone leaves for CA every Wednesday). Usually the midwatch has the head and shower to himself between weather reports and rounds. And each man has hobbies such as weightlifting or building models to keep him busy and out of everyone else's way.

"Most important," Foster said, "each man brings his own food and cooks it the way he likes. That way no one can complain about the cooking or the menu. If the food is lousy—and mine was for months—it's your own fault. We have plenty of cookbooks, but no cooks."

"If you come here with the right attitude," Owens said, "things work out all right. We hardly ever have any disagreements among ourselves, though, from time to time, we all get depressed. When that happens, everyone pitches in and tries to take the guy's mind off home, his girl or whatever is bothering him."

In fact, Owens sees his job "as a tool to help get things done." He feels that it is his responsibility to keep morale high and supervise lighthouse work.

"Let's face it, being cooped up out here is hard on a man, especially during the winter when he can't go outside to fish, swim, or take our small boat to shore for mail and provisions," Owens said. "I try to make things as easy as possible. I don't make busy work. When the men have finished their jobs, they are free to do whatever they like. Each man knows what has to be done and he does it."

There is plenty to do. Unlike a shore station or a ship, no maintenance department is handy and it would take Group Baltimore a while to send in experts. "So, we do it ourselves," Owens said. "That way we take the pride and we get the credit. You'd be surprised at some of the work we've accomplished. For instance, we laid new linoleum in the kitchen and carpeted the two bedrooms and the radio room. When the water pipes went bad, we replaced them and installed the last water storage tank. We did it all and we're proud of it. What we do we pass on to the next keepers to make their jobs a little easier."

Fire is always a hazard at sea and it is especially feared in a wood-frame house sitting two miles into the bay. Thomas Point Light has 15 fire stations in the six-room structure and a smoke detector in every room. Just in case, a small boat is kept secured on the lower deck and there is a wet suit for each man. "If worse came to worse," Foster said, "we could probably survive on the rocks or in the water until Annapolis could get a boat here."

There has never been a fire at the light, but there have been some "hellacious" storms. "Once we got 60-knot winds from the southwest with five- or six-foot seas," Owens said. "Suddenly the wind shifted and the waves began splashing on the main deck. The light shook and I could feel each swell hit us. This place is over 100-years-old—you begin to wonder how much it will take.

"There was a cutter out there who radioed us to find out what was going on. No matter which direction she headed in, the seas changed. That ship was tossing every which way. It's frightening when you find yourself wondering what would happen if a ship was blown so far off course she ended up in your living room."

Save that happening, the light looks like she will stand forever. To a man, the keepers would like to see the Coast Guard completely restore it, outside and in (with a few modern conveniences, of course), and make it into a showplace.

"My main reason is self-centered," Foster said. "It would give us a change of scenery if we could have visitors. We'd get to see some new faces occasionally and that would sure relieve the monotony."

Except for an occasional call from a passing ship asking for weather information or that a message be relayed, the keepers have little to break the day-to-day routine. Reveille goes at 0700. At 0800, the mid-watch is relieved, the day watch is set, and the mid-watch goes to bed. At 1130, station work is secured for lunch. At noon, the mid-watch is awakened and eats. At 1230, it's turn-to until 1600 when the day watch is secured and knock-off sounded. At 2345, the mid-watch is set.

Actually, the daily routine is much more lax than the schedule indicates. If there is no work to be done, each man, except the watch, has free time.

In spite of the isolation, it's "better than shipboard duty," Owens said. "The Coast Guard tries to send only volunteers and when we've finished our 18 months we can usually name our next billet."

There is one hazard to lighthouse duty that could lend credence to the stereotyped image of keepers being hermits: "After a while," Owens said, "you get used to hearing only the sounds of the sea and little else. You begin to like the solitude and keep pretty much to yourself, even when you go home. Sometimes, it makes it hard to readjust to being on shore."

Others welcome the solitude. "It gives me a chance to get away from the hassles on shore and spend some time with myself," Franklin said. "When I've had enough time alone and things start getting to me—when I'm bored to tears—there is always the week off just a few days away. I like that." ⚓

Bearings

Guadalcanal Revisited

On July 7, the South Pacific island of Guadalcanal gained its independence after 85 years as a British protectorate. USS *Harold E. Holt* (FF 1074) and USS *Whipple* (FF 1062) were there to join in the celebration.

"I wish I could describe the electricity that shot through the crowd when our Navy honor guard marched onto the parade ground," a Navy witness said. "The instant the American flag came into view, followed by white-helmeted, 12-man marching units from the ships, the crowd let go the loudest cheer of the morning."

Nearly 600 sailors streamed into the normally sleepy capital town of Honiara, Guadalcanal, in the Solomon Islands on July 5, to observe and participate in public dances, parades, beauty contests, receptions, sporting events and other independence day festivities. Many toured World War II battle sites still strewn with wreckage from the 1942 routing of the Japanese by Navy and Marine Corps units. Others visited out-of-the-way thatch-hut villages and mingled with islanders.

Holt and *Whipple* crew members were warmly received wherever they went. In Vilu Village, Fred Kona, owner of the open-air war museum, excitedly shook each sailor's hand as he said, "Hello, hello, all my friends. All Americans my friends."

Many Navy men followed Honiara's dusty main road to Red Beach, where 11,000 U.S. Marines made their first amphibious landing of the war and went on to capture Henderson Airfield, and to Bloody Ridge, where the Japanese fought unsuccessfully to retake the airstrip. The parade grounds, also on that road, were the site of the official ceremonies, attended by numerous international delegations.

As the ships prepared to get under way on July 8, islanders of all ages

ALL HANDS
HAS MOVED

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gathered silently at the pier. They stood or sat motionless. The young stared at the warships; the old had their eyes fixed not on *Holt* or *Whipple*, but on the horizon over which similar ships had come 36 years ago to rid Guadalcanal of the enemy.

Someone in the back of a pick-up truck turned on a portable tape recorder and the tinny, scratchy sound of an overplayed song marched through the crowd. The title of the cassette was "National Songs of the Solomon Islands."

The song was "The Marine's Hymn."—*JO1 Rich Sylvester*

Some Were Skeptical

Used to be, when a young fellow joined the Navy, he knew one thing was certain until he made rate. Make that two things—chipping and painting. Things may be different soon, even for sailors regularly assigned those duties, thanks to flame-spraying, an alternative to chipping and painting as a way to preserve metal.

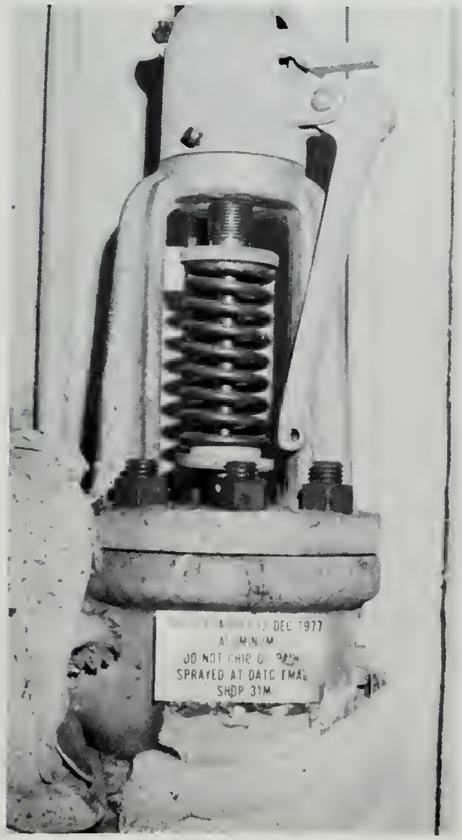
Using available technology and equipment, experts at the Development and Training Center, Fleet Maintenance Group Pacific (DATC/FMAG) in San Diego developed a step-by-step instruction for flame-spraying aluminum onto clean metal. This process, long used in private industry, virtually stops corrosion and eliminates the need to re-treat metal continually by chipping and painting.

The flame-spray gun, similar to a painter's air brush, uses oxygen and acetylene to melt an aluminum wire in a small combustion chamber in the gun. High pressure air propels the melted aluminum onto the surface of the receiving metal. The process is quick and relatively easy for a person who knows the procedure.

USS *Schofield* (FFG 3), designated as a test platform for the flame-spray, is evaluating the process. Over two hundred items aboard the *Schofield*, from lifelines to diesel exhaust stacks, were treated at DATC/FMAG.

Some of the crew were skeptical about the new process. They doubted that the benefits were worth the work required to deliver, pick up and reinstall items flame-sprayed at DATC. But now, even the most skeptical are firm believers, and the enthusiastic crew is pursuing every possibility for expanding the use of flame-spray.

After over four months, *Schofield's* flame-sprayed parts have held up extremely well. The stern capstan, which was sprayed with tungsten and aluminum, no longer requires maintenance after each use. Other high corrosion items appear to be the same as the day they were sprayed.



The Naval Sea Systems Command has approved continued funding for research and broader use. That means there may yet be hope for the sailors who have always claimed there had to be a better way.

A Golden Year

They call it the Midas touch—and Air Anti-Submarine Squadron 38 (VS-38) seems to have it. First, they won the Pacific Fleet's 1977 Golden Anchor award for their retention program. On top of that, they captured the Golden Wrench—CNO's Aircraft Maintenance Award for air anti-submarine squadrons.

Anti-Submarine Squadron 38 achieved and maintained a higher average of operation readiness and "full systems capable" rates than any similar West Coast squadron to capture the coveted award during their first year of operating the highly complex S-3A *Viking* anti-submarine aircraft. They received their first aircraft in November 1976 and completed squadron transition from S-2G aircraft to the *Viking* in February 1977.

The squadron is stationed at North Island Naval Air Station, Calif., and deploys aboard USS *Enterprise* (CVN 65).

TraPac's Top Chief

Master Chief Storekeeper Margaret I. Gramlich recently assumed the billet of Command Master Chief for the U.S. Pacific Fleet Training Command (ComTraPac), San Diego—the first woman to fill one of 63 such billets in the Navy.

As Command Master Chief, Gramlich will function primarily as the principal enlisted adviser to the commander. She is responsible for helping to keep the command aware of existing or potential situations, procedures and practices which affect the welfare, morale, job satisfaction and utilization of its enlisted members.

The 28-year veteran was attached to the staff of the Pacific Fleet's Surface Force before reporting to her present duty. Previous duty stations include U.S. Naval Forces, Europe, London; Naval Recruiting Station, Richmond, Va.; and Eighth Naval District Headquarters, New Orleans, La.

Master Chief Gramlich considers her assignment to the Human Resources Detachment, Yokosuka, Japan, as one of her most interesting—and beneficial—duties. "Command Master Chief is basically a people-oriented job," she explained. "My training with the Human Resources Detachment provided good background in this field."

Awards for Bravery

The Australian government recently cited for bravery two U.S. Navy officers who fought an aircraft fire at a Royal Australian Naval Air Station in 1976.

In a ceremony on the other side of the world—at the U.S. Naval Station, Rota, Spain—Lieutenant Commander William J. Newton was awarded the Australian Bravery Medal. At another ceremony held at the Australian Embassy in Washington, D.C., Lieutenant James F. Rowe was awarded the Australian Commendation for Bravery. LT Rowe is now serving aboard the USS *Kitty Hawk* (CV 63)—see below.

LCDR Newton and LT Rowe, then on exchange duty with the Royal Australian Navy, in Norwa, Australia, took immediate action on the night of Dec. 4, 1976, following an explosion in a hangar containing 12 S2E *Tracker* aircraft and heavy equipment. They directed the removal of some aircraft from the burning area of the hangar, and then led fire teams in rescuing as many of the remaining planes as possible. Six of the burning *Trackers*, some with fuel tanks exploding, were pushed out by hand.

The commendations recognized the leadership and courage exhibited by Newton and Rowe in fighting the disastrous hangar fire.

Sailors of the Year

THE BEST IN '78

BY JOC DAN GUZMAN

Sailors of the Year (L to R): UTC Craig D. Bowles, ISC James S. Girardin and YNC Robert A. Laskowski are flanked by CNO Admiral Thomas B. Hayward and Secretary of the Navy W. Graham Claytor Jr., presenting the awards.

All had been first class petty officers; by virtue of their selection to Sailor of the Year, they received meritorious promotion to chief. They and their families received five days of rest and relaxation (R & R) at the location of their choice in the continental United States.

ISC Girardin is congratulated by CNO as he is presented his Pacific Fleet Sailor of the Year certificate.

Chief Intelligence Specialist James S. Girardin: "Sailor of the Year is not something that you work toward. It is something that can happen if you do your job as best you can with as much dedication as you can give it. I'm a career Navy man and I just don't think you can be a career person unless you put everything you have into your job."

The Sailor of the Year Program was established in 1972 to recognize and reward the Navy's best active duty Navy men and women in paygrades E–4 through E–6.

Chief Yeoman Robert A Laskowski: "I thought all along that I was just doing my job. I never expected it. You just do your job and help out when something out of the ordinary comes along. Don't do just what is required. Give a little extra, take the initiative. Give that extra bit all the time, not necessarily expecting something in return."

Sailors of the Year and their families are flown to Washington, D.C., where the men are formally named Sailors of the Year by the Secretary of the Navy and the Chief of Naval Operations. They then have an opportunity to serve a year as assistant to their respective Master Chief Petty Officer of the Fleet. The Shore Establishment Sailor of the Year may choose to serve with the Master Chief Petty Officer of the Naval Education and Training Command.

Chief Utilitiesman Craig D. Bowles: "Initiative! Always take the initiative! Keep your goals high, keep up the initiative, never say 'die,' and always have a 'can do' attitude!"

The three Sailors of the Year for 1978—Girardin for the Pacific Fleet—from SEAL Team One, Amphibious Base, Coronado, Calif.; Laskowski for the Atlantic Fleet—from Naval Mobile Construction Battalion 74, Gulfport, Miss.; and Bowles for Shore Establishment—from the Naval Air Station in Bermuda, follow the same code: initiative and dedication to one's job and to the Navy! This is without a doubt part of the reason for their selection as the Navy's best for 1978.

"From here," said Girardin, "I'm going back to a SEAL team where I'll get TAD orders to the Navy parachute team out of Coronado. That's our special warfare group's personal recruiting team.

"We represent the Navy but we also plug the special warfare group, UDT and SEALs. I feel I could do more for the Navy there. I was with them once before for a year and a half."

In addition to qualifying as a Navy SEAL and UDT operator, Girardin is a parachutist, diving supervisor, helicopter rig/rappel master, helicopter swimmer dropmaster, and a photographer. His qualifications include several other related specialties developed as a result of his extensive military training in at least 19 different schools.

Numerous duties in the past for Girardin include three tours in Vietnam, a year in Thailand, assignment with SEAL Team Two in Puerto Rico, and being a member of the U.S. Navy Parachute Team (West). An expert skydiver, he represented the Navy in the 1973 Western Conference Parachuting Championship.

Girardin elected San Antonio, Texas, for his five days of R & R to be with his parents in nearby Longview.

"I always wanted to be a yeoman," says Laskowski, "It's a diversified rating and offers me the work I want. I'm in the people business. I like to work with people, to help them out when I can."

An important member of the Laskowski Navy team is Norma Laskowski, who believes that a Navy wife should support her husband's career and the Navy.

"I think a Navy wife should give her husband her complete support. She's the closest one to him and she would be the one to believe in him more than anyone else. My husband really gets involved in his work. If he's going to do something, he's going to do it right

Senator John Tower (R-Tex.), who is a chief petty officer in the Naval Reserve and a member of the Armed Services Committee, meets YNC Laskowski and his wife, Norma.

and get totally involved," Mrs. Laskowski said.

"As Navy wives, we can help our husbands and the Navy by knowing and understanding his work and standing by him," she said.

Past duty stations for Laskowski include duty aboard USS *Charles Berry* (DE 1035), deployment with Naval Mobile Construction Battalion 74, Rota, Spain; Okinawa, Japan; and Diego Garcia. Laskowski has earned the NEC of Court Reporter and Legal Clerk, as well as the NEC of collateral duty Career Counselor. In addition, he has completed several correspondence courses and schools and taken Spanish at the University of Maryland.

The Laskowskis spent R & R visiting San Diego's Sea World, the San Diego Zoo, a Hollywood movie studio and a full day at Disneyland.

"I originally wanted to go into the aviation field," said Bowles, "but, unfortunately, I was colorblind and the Navy offered me the Seabees instead. My father was in the Seabees during World War II, so I took it; I have never regretted it. I enjoy the travel, the work, and the people. My wife enjoys this life also."

That is an understatement. Mrs. Bowles is Navy all the way and not hesitant saying so. "I was so thrilled and proud when he brought the message home," she said. "I told our daughter, 'Your daddy made chief!' I was also very excited that he had been selected as Sailor of the Year."

Bowles has his Associate of Arts Degree in Business Management from the University of Maryland (Bermuda Campus) and is certified by the State of California to teach freshman and sophomore high school workshop air-conditioning and refrigeration.

"My wife really helped me a lot," says Bowles, "I was gone six nights a week teaching and studying and she never complained. She kept the kids busy while I studied at home and she still found time to type a lot of my papers for me."

In her reply, perhaps Rose Bowles best demonstrated why these three men were able to accomplish their jobs in such a way as to bring them to this high point in their careers: "The Navy wife is very important to her husband's career and to the Navy. We're a part of the Navy and I'm proud of it!"

The Bowles also took the same R & R trip offered Chief and Mrs. Laskowski.

A 12-year veteran of the Naval Reserve, Yeoman First Class Gustav J. Stangline was named the Outstanding Enlisted Naval Reservist for 1978 and was advanced to chief yeoman.

Stangline, an instructor at Lackawana Junior College, Scranton, Pa., drills with the Antilles Defense Command Detachment 104 at the Naval Reserve Center, Avoca, Pa. He has an extensive record of youth and civic involvement. ⚓

Fleet Reserve Association National Financial Secretary Glenn F. Glezen presents UTC Bowles and his wife, Rose, with a check to cover expenses for their Sailor of the Year trip to San Diego's Sea World, the San Diego Zoo, Hollywood and Disneyland.

SURVEYORS of the SEA

BY RAY HAGEN

If you mention hydrographic surveys, the first step in charting the seafloor, you're not apt to fire one's imagination with scenes of heavy action at sea. On the other hand, when a battle begins, any Navy ship, even a survey ship, is fair game for a piece of the action.

It wasn't her normal duty that called on the USS *Sumner* (AG 32), during the attack on Pearl Harbor, to be the first Navy ship to "survey" a Japanese torpedo plane right out of the Sunday morning sky. Later, in 1945, crewmen of the *Sumner* (then AGS 5)—surrounded by sniper fire—erected the first survey signal tower on Mount Suribachi only three days after the Marines raised the American flag on its summit.

Throughout World War II, Navy survey ships often operated without escort, carried very little armament, and found themselves frequent targets of enemy bombing runs. *Sumner* was bombed 40 times without being hit. The information she collected was so valuable to Navy operations that a plane or a PT boat was dispatched every week to pick it up so the data wouldn't be lost if the survey ship was sunk.

The *Sumner* went into that war as the first Navy ship to be equipped with a 24-inch film camera, a 17- by 22-inch offset lithographic press, and other equipment needed to produce charts aboard ship. She surveyed waters around more than 50 Pacific islands stretching from Bora Bora—in the Society Islands—to Okinawa and Iwo Jima.

More than 200 charts, containing information collected from Pacific surveys conducted by *Sumner* and other Navy ships, were produced and distributed to the operating fleet during WW II.

Our picture of the seafloor has been filled in with many details since those WW II years precipitated stepped-up hydrographic survey collections in operational areas of the fleet. However, the sea covers nearly three-fourths of the earth's surface and there's a staggering volume of seafloor acreage that remains unsurveyed and largely unknown to the seafarer skimming over water-covered valleys and peaks.

As with many other aspects of knowledge about the sea and its basins, the Navy led the way in developing survey technology and skills dedicated to the collection of data needed to see what lies beneath the surface of the oceans. Today's survey efforts are assisted by an exciting variety of advanced technology that relies heavily on the use of underwater sound for drawing a picture of ocean depth and seafloor features.

Other advancements in ocean technology enable us to get right down to the seafloor, to eyeball underwater cliffs, mountain ranges, valleys, trenches and an assortment of other features that generally imitate what we see, all around us, in more familiar continental land masses.

A long-range objective in ocean survey operations is to map the seafloor as accurately as earth land areas have been mapped. On land, the task has been accomplished with greater speed than in the ocean through aerial and satellite photography. The ocean yields its secrets far more slowly.

Light energy, imperative to conventional photography, and electrical energy, used in radar sighting, dissipate much too rapidly in the oceans to be of any practical use for underwater survey operations.

The most reliable and widely used technique for determining bottom depth and features is echo-sounding—measuring the time for a sound signal to travel to the bottom and return to the surface—which easily translates into distance or depth. Modern depth-sounding sonars can delineate the seafloor features in detail along a wide swath, while the survey ships steam along at speeds up to 12 knots. While this has significantly increased the data

USS Sumner *(AG 32), whose exploits in the South Pacific during World War II helped provide invaluable chart information to the fleet, continues to map the ocean's floor.*

collection rate, only a small part of the ocean floor has been adequately surveyed and much remains to be done.

As the survey ship's sonar beam sweeps along the seafloor and the echo returns to the ship, the signals are fed into an automated system which amplifies and processes the signals to operate a chart plotter. Lines representing bottom depths in contours are drawn by a moving stylus on the plotter as it responds to data coming in from the sonar sweep.

Completed charts from the automatic process provide a graphic illustration of the topography of the seafloor surveyed.

Who are the people aboard survey ships that make these road maps of the oceans available? First, one must realize that the product of these surveys is charts, rather than maps. In simplest terms, charts are what one works on and maps are what one looks at. An example of work on a chart is the plotting of a ship's course in which lines as well as other notations are drawn directly onto the chart by the ship's navigator.

Personnel aboard the Navy survey ships represent a wide variety of skills, ranging from shipbuilding to scientific interpretation of ocean data during survey operations. They all work together in a closely knit seagoing community to produce the finished charts so essential to mariners.

Navy survey ships are operated by the Military Sealift Command which is responsible for providing an efficiently functioning platform from which to conduct the survey. MSC ships are crewed with civil service personnel with experience equal to and even surpassing merchant seafarers plying the seas in commercial ships all over the world's oceans.

While the civilian crew operates the ship, scientists and Navy personnel conduct the surveys and make initial, on-the-spot evaluations of data coming in. Enlisted Navy men performing jobs as electronic technicians, quartermasters, yeomen, data technicians, lithographers, photographers, seamen, engineers and engineer's aids serve as part of the embarked Oceanographic Unit (OCUNIT). Commanded by naval officers, the OCUNITs work along with civilian scientists and technicians as part of an integrated element of the survey team.

Most of the civilian scientists and technicians working in hydrographic surveys are employed by the Naval Oceanographic Office. They divide their time between sea and shore duty.

Two of the coastal survey ships are equipped with small boats which Navy people man as they take soundings in water too shallow for the mother ship to enter. They are equipped with sonar and automated systems that record exact positions and depth soundings along the survey's course.

Because of costs, the Navy tries to plan the most productive schedule by combining as many survey tasks as possible during one voyage.

Such a combination is to schedule weather observations along with selected oceanographic surveys. Thus, acoustic properties of an area can be investigated at the same time as a hydrographic survey is in progress, or between hydrographic surveys while transiting to a new area.

Included among the personnel of the survey ship's complement are geodetic survey teams and Navigation Aids Support Teams (NAVAID). Their job is to set up and operate signal equipment and geodetic control points for the electronic navigations networks. Some of the geodetic survey teams consist of Navy, Marine Corps and civilian personnel.

Most of the Navy's hydrographic survey work is conducted in waters off the coasts of foreign countries. Agreements are made with other nations to survey their harbors and coastal waters. This provides the Navy with finished charts needed for operations and, at the same time, the host nation gains knowledge of its territorial waters and harbors.

Charting the oceans is a task too big for one nation to attempt alone. Cooperative survey and charting operations among nations have existed for many

Constantly adding to the store of oceanographic knowledge, Navy survey teams update hydrographic charts so essential to world mariners.

years. A major center for exchange of hydrographic information since the turn of the century is the International Hydrographic Organization (IHO), headquartered in Monaco. Established in 1901, the organization is made up of representatives from many nations. The IHO works to bring uniformity into ocean charting and to provide a central point through which information essential to safety and economy of operations at sea can be made easily available to mariners worldwide. The United States regularly provides a rep-

The theodolite measures vertical and horizontal angles. Below: At the request of the Egyptian government, USS Harkness *(T-AGS 32) surveys the approaches to the Suez Canal.*

resentative to the IHO and contributes funding to support its operations.

The Navy's combat fleet is the largest in the free world and, because of its operations, has a requirement for charting the oceans throughout the world. Since many maritime countries have few, if any, survey resources, the Navy must accomplish surveys itself to obtain the vitally needed data—otherwise the work would probably not be done at all, or at least not for some years to come.

A fine example of cooperative charting of coastal waters in foreign areas is that of the Harbor Survey Assistance Program (HARSAP). The Navy provides advanced technology, survey platforms and skilled personnel, and the host country provides a complement of its own people to work with and learn from the U.S. survey team. When designated harbors have been surveyed and charted, the information becomes available both to the host nation and to the United States. Currently, 11 Central and South American nations have participated in the HARSAP program and a twelfth will soon join them.

Another cooperative survey being conducted at this time responds to a request from the government of Egypt for updated charts of the approaches to the Suez Canal. Oil tankers are getting bigger and the Suez Canal is not deep enough to safely accommodate them when they are fully loaded. A solution to the problem is to offload much of the oil at El Sokhna, the Gulf of Suez oil pipeline terminus. The lightened ship then proceeds through the canal while the pipeline carries the offloaded oil north to the Mediterranean terminus where the tanker reloads and proceeds to Mediterranean and North Atlantic delivery ports.

USNS *Harkness* (T–AGS 32), a modern Navy survey ship equipped with advanced survey and charting technology, is conducting the survey in the approaches to the Suez Canal and will be engaged in that project for the next several months. Geodesy teams from *Harkness* are already set up along the shoreline and the survey is under way.

A finished chart of any coastal area is not the end of the need for further survey. Coastlines and the seafloor itself change with time and dynamic actions within the earth's crust. Those fundamental changes are further complicated by constant man-made changes such as sunken ships and other hazards to navigation.

Although charts are periodically updated, weekly *Notices to Mariners* are published and distributed worldwide to provide the most immediate information.

In the final analysis, there is a contribution to Navy hydrographic charting from a variety of Navy skills and advanced Navy technology. While it may not strike the novice as front-line Navy action, the contribution is one of the most essential elements in keeping our fleet ready for action in time of need. ⚓

Geodetic survey teams, set up along the shoreline, receive supplies via helicopter.

Henry the Navigator

BY JO1 (SS) PETE SUNDBERG

During early times, as boats grew into ships, myths of the dark and unknown sea dominated the minds of men. Some of the most learned were convinced that the sea could not be navigated and that it was a dark and fearful realm of sea monsters, everlasting nights and boiling waters.

Fortunately, there were also scientifically minded and practical men who had the courage to search out and destroy those myths. One was Prince Henry of Portugal, better known as Henry the Navigator. He was so well-versed in the nautical sciences that he trained others, designed new ships and planned voyages that spread his fame throughout the globe.

Henry was born in 1394 in Porto, Portugal; he first appears in history in 1415 when he won knighthood in the Crusades by capturing the Moslem fortress of Ceuta, in Morocco, on the African coast opposite Gibraltar. For his victory, he was given the southern province of Portugal, the kingdom of Algarve.

A passionately religious man, he believed in a legend concerning a powerful Christian kingdom ruled by a man named Prester John. Supposedly, this kingdom existed somewhere southeast of the Nile Valley. Henry was obsessed with finding a sea route around Africa, outflanking the Arabs and joining forces with this man.

The search for the legendary kingdom not only played an important role in Henry's life, but led to some of the most important maritime discoveries of the time.

Henry went to the small port of Sagres, tucked under the cliffs where Cape St. Vincent fronts the Atlantic Ocean. To accomplish his dream, Henry knew he first had to improve the methods of navigation.

First, he established a navigation school at Sagres (the world's first) where he collected all available charts and material. Then he assembled a faculty of astronomers, mathematicians, cosmographers, chartmakers, ship designers, master mariners and pilots.

Henry's next concern was finding a suitable ship. Until then, navigation consisted of following known coastlines. He conceived the idea of sending a ship where no man had been before— a ship large enough to survive the roughest seas, capable of supporting a crew for up to two years, yet small enough to be easily handled by that same crew even if weakened by illness or reduced by death.

His ship had to carry enough sail to drive her at a reasonable speed when the wind was fair and also maintain a headway when it was foul. Her hull had to be deep, yet shallow enough to operate safely among unknown shoals and reefs, and she had to have speed and maneuverability.

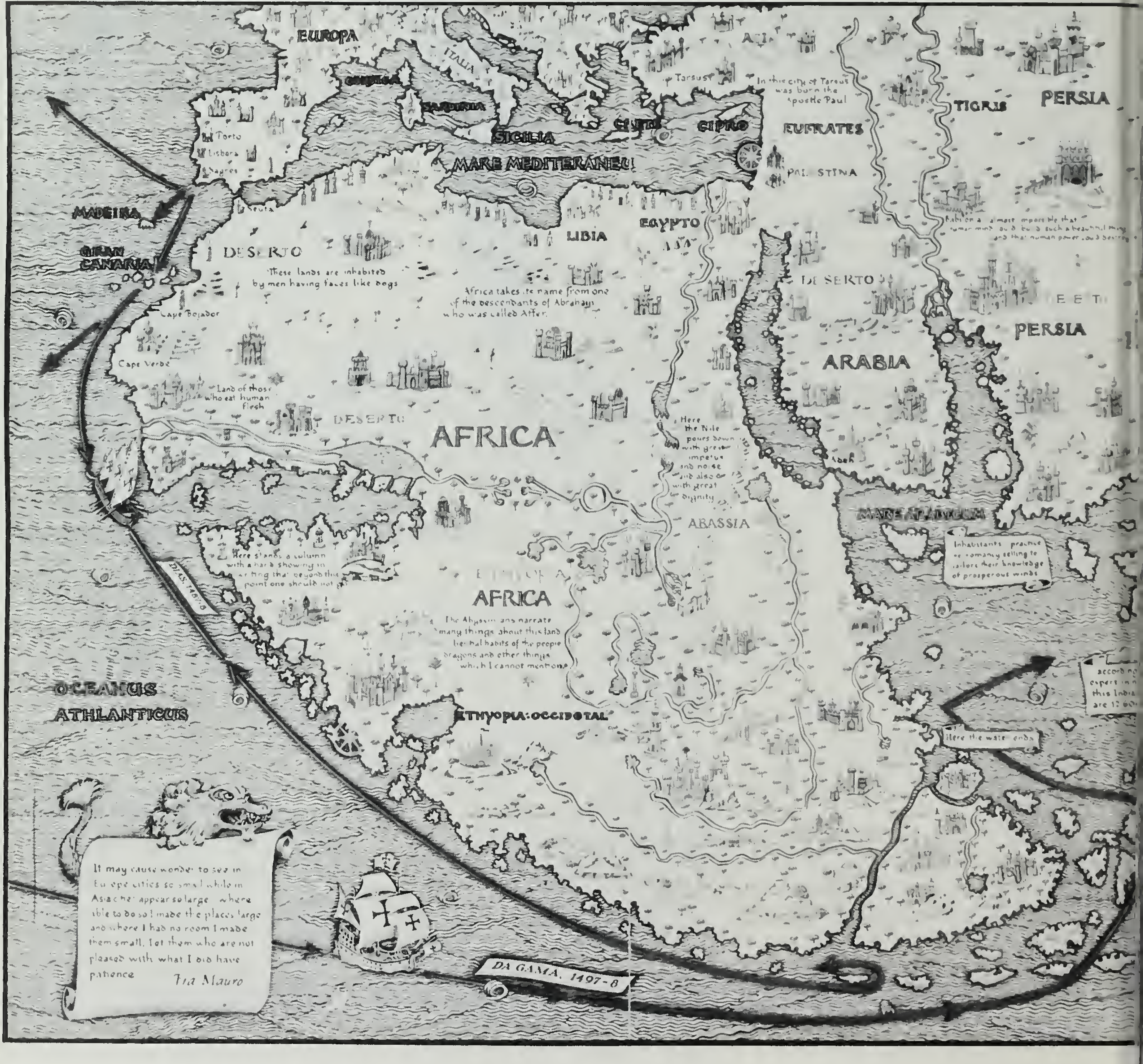
Whether it was luck or sound judgment, Henry found a ship that met his basic needs right there in Sagres—a lateen-rigged caravel. Backed by the best ship designing brains and the most skillful shipbuilders he could find, he redesigned the craft. In fact, during 40 years of work at Sagres, Henry continuously designed and redesigned ships and their rigging.

Having solved the problem of ships, Henry then faced the task of finding crews. Here again, he was lucky, or maybe just a little more perceptive than other organizers; he was able to choose his crews from seamen of Sagres.

The average seaman was clever with his hands, a great improviser and tough. What he lacked in culture and social graces, he made up for by being shrewd. Not overscrupulous, he owed allegiance to few men. Generally, he served other interests only when they coincided with his own.

Henry was aware of the type of men he had to deal with, but he was convinced that through discipline he could change them. He did. The Prince made his ships and their crews the best disciplined the world had known and, in doing so, he changed the whole status of the seafaring profession.

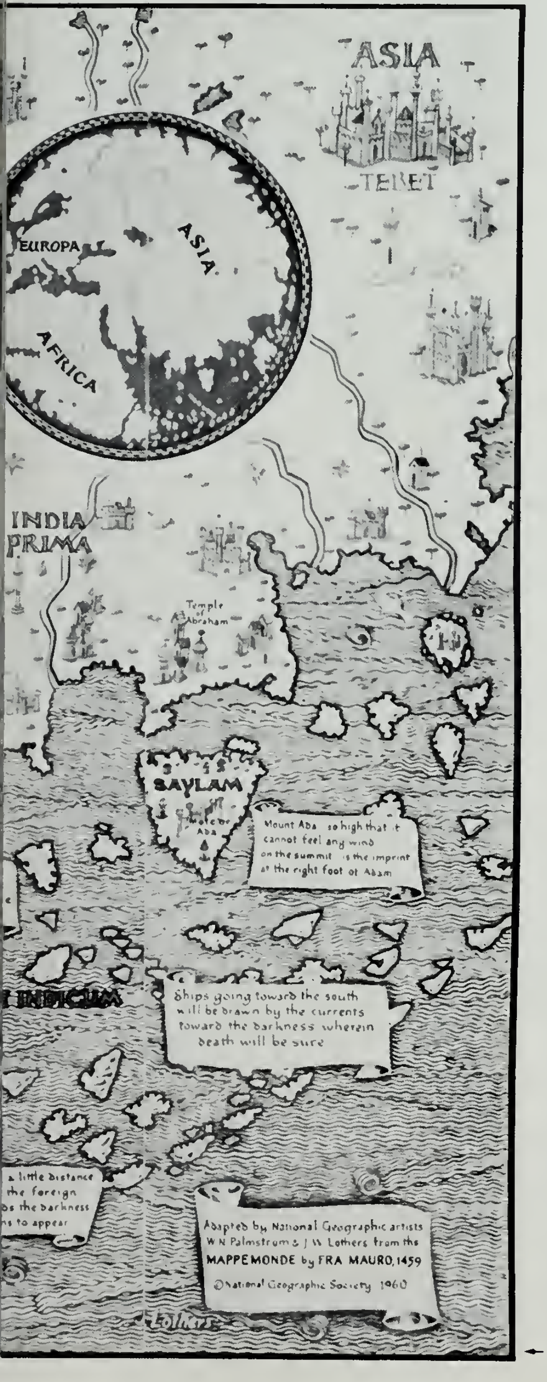
For every offense, Henry had a punishment. A ship's clerk was liable to branding on the forehead, the loss of his right hand and the forfeiture of his property if he willfully made a false bookkeeping entry. A sailor who fell asleep on watch was put on bread and water. If the offense occurred in enemy waters, he was stripped, flogged and ducked three times. If he were an


EUROPA
ITALIA
CORSICA
SARDINIA
SICILIA
CANDIA
CIPRO
MARE MEDITERANEU
Tarsus
In this city of Tarsus was born the Apostle Paul
ASIA
TIGRIS
PERSIA
EUFRATES
PALESTINA
Porto
Lisbona
Sagres
Ceuta
MADEIRA
GRAN CANARIA
DESERTO
These lands are inhabited by men having faces like dogs
LIBIA
EGYPTO
ASIA
Africa takes its name from one of the descendants of Abraham who was called Affer.
DESERTO
ARABIA
PERSIA
Cape Bojador
Cape Verde
Land of those who eat human flesh
DESERTO
AFRICA
Here the Nile pours down with great impetus and noise and also with great dignity
Aden
MARE ARABICO
ABASSIA
Inhabitants practice necromancy selling to sailors their knowledge of prosperous winds
Here stands a column with a hand showing an inscription that beyond this point one should not go
DIAS, 1487-8
ETHIOPIA
AFRICA
The Abyssinians narrate many things about this land like the habits of the people, dragons and other things which I cannot mention
ETHYOPIA: OCCIDENTAL
OCEANUS ATHLANTICUS
Here the water ends
DA GAMA, 1497-8

It may cause wonder to see in Europe cities so small while in Asia they appear so large. Where able to do so I made the places large and where I had no room I made them small. Let them who are not pleased with what I did have patience
Fra Mauro

officer, he had a pail of water flung over his head—not a bad punishment unless you consider that water was very unpopular in non-bathing times.

While vessels and crews were being readied, Henry's men at Sagres worked to improve charts, compasses and shipboard instruments. They also devised astronomical tables. The first statesman to realize that oceans were not barriers but great highways for commerce and that sea power could also mean world power, Henry was ready to send his men to sea.


ASIA
TEBET
EUROPA
ASIA
AFRICA
INDIA PRIMA
Temple Abraham
SAYLAM
Mount Ada
Mount Ada so high that it cannot feel any wind on the summit is the imprint of the right foot of Adam
INDICUM
Ships going toward the south will be drawn by the currents toward the darkness wherein death will be sure
a little distance the foreign the darkness to appear
Adapted by National Geographic artists W N Palmstrom & J W Lothers from the MAPPEMONDE by FRA MAURO, 1459
© National Geographic Society 1960
Lothers

← *Courtesy of National Geographic.*

In 1418, Henry ordered Joao Goncalves Zarco, the first sea captain to use artillery on board a ship, to sail the Western Ocean in search of new lands. Zarco departed, but was driven off course by a storm and came upon the island of Porto Santo. When he returned in 1419, he informed Henry of his discovery. The following year Zarco was sent back to the same region and discovered another island, Madeira. Henry soon sent settlers to colonize and farm the island.

On orders of the tireless scientist-prince, his sea captains continued to probe the ocean. New lands were discovered, the west African coastline was explored and, above all, new methods of navigation were tried.

Although the discoveries of Madeira, and, later, the Azores were triumphs, Prince Henry considered it of secondary importance within the overall framework of his projects. His sights were set on what lay beyond Cape Bojador, southeast of the Canary Islands.

When the Navigator began his work, the African coast fronting the Atlantic had been explored from the Pillars of Hercules to Cape Bojador. According to sailors' tales, no one had penetrated and returned from beyond that point. Bojador was the limit, a mystical, magical point beyond which no mere mortal could pass.

Convinced that the lands and seas he searched for really existed, Henry explained his calculations to one of his captains, Gil Eannes. A vessel was equipped and manned and Eannes was sent on the first of two attempts to reach beyond Bojador. The first voyage failed—Eannes came in sight of the cape but his sailors refused to round it. Again, in 1434, Eannes sailed back to the much-feared cape, this time with a different crew. When he saw the water off the cape boil— as he had seen previously—he sailed bravely on, skirting it. He discovered the boiling water was caused by an ebb tide racing over coastal shoals, and thus ended the foolish legends and superstitions concerning Cape Bojador.

It had taken Henry 19 years to get his first ship past Cape Bojador—less than a thousand miles from Sagres.

Continuing his explorations was costly. Most of the revenues of his province went into financing his voyages. From 1444 to 1446, for example, the Prince licensed 30 voyages.

The colonization of the rich and fertile islands of Madeira and the Azores, the discovery of gold dust on the Guinea coast, the beginning of trade— all these provided new means of finance. But all this also caused his captains to take more interest in turning a profit than in making discoveries. To Henry, exploration was the only thing.

And explore he did. Cape Verdes was colonized and Henry's small ships pushed on. They rounded the bulge of Africa, past Cape Palmas and eastward, past the Ivory Coast, Ghana, and still further.

Though he died in 1460 without ever going to sea himself, Henry's work continued on a grand scale. His seamen explored and mapped the coastline of West Africa to a point beyond the River Gambia. His captains became the best trained and most experienced navigators in Europe. Nautical science developed to such a degree that it allowed the Portuguese to navigate without fear.

All the Navigator's work culminated, finally, in a long-sought-after goal achieved by others shortly after his death— the Portuguese discovered the water route to India. The dream of finding the mythical kingdom of Prester John went by the boards, a small price to pay for the riches of the Orient. ⚓

PHILLY'S SILENT NAVY

BY PH1 TERRY MITCHELL

They wait, in clusters of twos and threes, retaining their strength only in numbers. Pigeons roost in hawse pipes over missing hull numbers, painted out as if to conceal their embarrassment.

Once they proudly sailed with the best of the world's fleets. Now they lie forever at rest as they wait the call back to active service.

Battlewagons, cruisers, carriers, tin cans, subs, auxiliaries—they are the ships of the Inactive Ships Facility Detachment, at the Naval Base Philadelphia. For many of them, the only call is likely to be a wrecker's yard, where they'll be torn apart bit by bit.

Without the crews to give them life, their paint blisters, curls and finally peels off. No man-made noise disturbs the silence of the passageways.

Then a metallic click of a switch breaks the stillness. The whirring of a

Below: Ships which saw action in World War II make up part of the nation's mothball fleet in this 1947 photo taken at the Philadelphia Naval Shipyard.

fan gaining speed says the dehumidifying machines are on again. The dehumidifiers are the first line of defense for the ships, now in their only war—the war against corrosion. Keeping the internal air at 30 percent relative humidity drastically reduces rust forma-

Left: Their hull numbers painted out as if to conceal their embarrassment, the cruisers Newport News, Springfield *and* Northhampton *have only the gentle lapping of the basin's water against their sides to remind them of the sea.*

Below: The Wisconsin (center) and the Iowa (right), are ironically flanked by the Shangri-La, *one of the carriers that made the battleship a weapon of the past.*

tion. Boiler tubes, fire mains, compartments, offices, gun mounts, voids and even some of the interiors of kingposts out on deck receive the dry air treatment.

Small, white Styrofoam balls dot the bilges. The balls are actually the simplest part of an elaborate warning system. Should the compartment flood, the balls would float and rotate to their weighted side, tripping an internal mercury switch.

Heat sensitive cable is wound around dehumidifying machines and active electrical panels to detect fire. The flooding and fire warning systems on all mothballed ships are connected to a panel on the quarterdeck of the USS *Everglades* (AD 24).

Selected offices and machinery spaces on the mothballed *Everglades* serve as headquarters for the Philadelphia detachment. The rest of the ship is sealed and dehumidified like her sister ships in the basin.

The appearance of the *Everglades* isn't much different from the rest of the ships. Sealant, long since oozed and dry, covers every crack, hatch, gun barrel, port hole and chink. It acts as a barrier to the deadly moisture-laden air. Painting, done for preservation and not for the sake of appearance, results in a patchwork of grays not unlike a camouflage scheme.

Cables snake across decks, diverge into smaller wires and disappear over the side into the water. Connected to underwater anodes near the hull, they are part of the cathodic protection network. The anodes' minute electrical current flow toward the hull, curtailing underwater corrosion.

The days are a blur; occasionally a former crew member will come by and try to capture a part of his past. He walks up and down the pier, squinting at "his" ship to see if something is still there. As he walks away, he turns around and looks back—one last time. The scene becomes silent once more.

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AVY HOSPITAL SHIP
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Port of Call - New York

BY JOSN HOWARD SAMUELSON

It was the beginning of Independence Day weekend as USS *Saipan* (LHA 2) steamed into the mouth of New York Harbor and slowly sailed up the channel.

Saipan dipped her upper mast to allow passage under the Verrazano-Narrows Bridge and then lifted it as a passing greeting, as it were, to the Statue of Liberty.

With a successful month of battle-readiness training in Guantanamo Bay, Cuba, tucked under their ball caps, *Saipan's* crew eagerly anticipated some well-deserved rest and relaxation in New York. The Navy's newest amphibious assault helicopter carrier had been chosen as the Navy's Independence Day representative for the New York City Harbor Festival. She was the city's major attraction during the holiday weekend.

Saipan lowered her brow for general visiting on July 2 and thousands of tourists, in a line which extended for several city blocks, entered her hangar deck. Although July 3 and Independence Day were rainy and cold, visitors continued to visit the mammoth amphibious assault ship. The tour route led crowds from the hangar bay up a steep vehicle ramp to the flight deck.

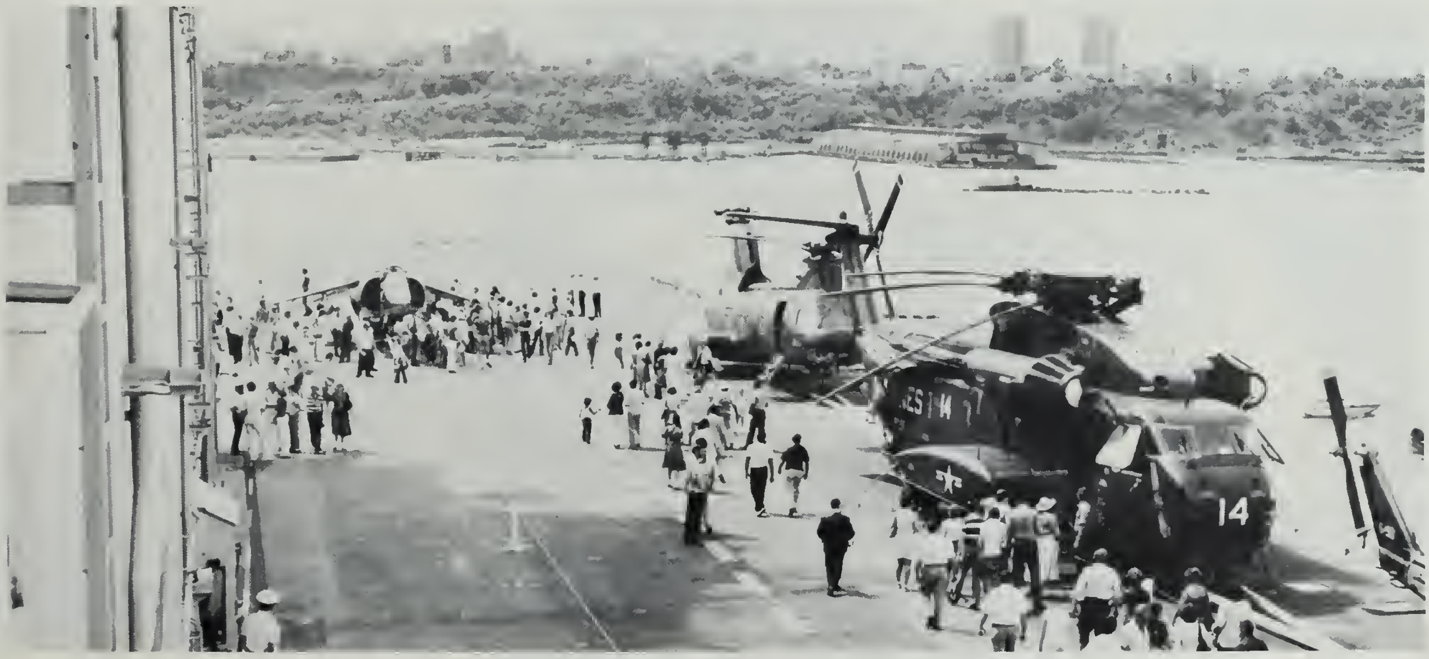
On the flight deck the visitors viewed a static display of three Marine helicopters (CH-53 *Sea Stallion*, CH-46 *Sea Knight*, AH-1J *Sea Cobra*) and *Saipan's* own UH-1H *Iroquois*.

Main attraction however, was an AV-8 *Harrier*, a jet which can lift-off, land and hover like a helicopter, but is able to fly more than 600 miles per hour.

Special visitors—New York City Mayor Edward Koch, six of Radio City Music Hall's Rockettes and movie actress Gloria Swanson—were given guided tours of the ship's medical, berthing and dining facilities.

Late each afternoon, as the last of the visitors left the ship, the crew members who missed the morning liberty call quickly prepared for their own visit to the city. In addition to the many activities the city had to offer, the USO on Broadway, along with the New York Naval Support Activity, sponsored a dance for the crew at a local facility.

On July 5 *Saipan* got underway for the short voyage back to her homeport at Norfolk.



Solid Shield

BY LCDR JOE MANCIAS
PHOTOS BY PH3 JAMES L. JONES

Atlantis, the legendary island in the Atlantic west of Gibraltar, stopped being legendary for Navy and Marine forces of the Atlantic Fleet when it became an assault area for 18 days last May.

Atlantis, actually Camp Lejeune, N.C., was the focal point for the Atlantic Command's amphibious and airborne operations in a joint service exercise named Solid Shield 78. Sailors in Atlantic Fleet ships and Marines of the Fourth Marine Amphibious Brigade responded to a simulated, but realistic, sequence of events designed to test command and control.

Solid Shield also tested the rapidity of employing our forces in response to an international crisis.

The situation—according to the exercise's scenario—that prompted our response came as Atlantis, deteriorat-

tests rapid response

ing from terrorism and the guerilla warfare tactics by subversive agents of an enemy country, requested help in accordance with our mutual defense treaty. The military objective for Joint Task Force 122 was to prevent enemy buildup of military supplies in Atlantis. This was accomplished by establishing control of seaward approaches, a tactic which prevented the enemy from capturing Stewart Island (Ft. Stewart, Ga.). It also repelled enemy forces and insurgents operating in Atlantis.

A reality during the exercise was the presence of a Soviet ship which monitored various phases of Solid Shield. The joint service amphibious assault went off on schedule, however, with a smooth meshing of supply and troop movements.

The USS *John F. Kennedy* (CV 67), with six surface ships and two submarines, set up an integrated anti-submarine warfare (ASW) screen. Using LAMPS helicopters, sonar, sonobuoys and other ASW equipment, the task force detected an "enemy" submarine and kept it at bay.

At the same time, the task force also had to defend against air attacks. The *Kennedy's* radar and aircraft provided the early warning necessary to intercept the incoming aircraft.

In the amphibious operating area, 11 ocean minesweepers kicked off the largest coordinated mine countermeasures operation in recent years (see accompanying article). According to Captain Edward F. Jardine, Jr., Commander of MINERON Twelve, Solid Shield covered a broad spectrum of mine countermeasures, from traditional surface minesweeping to state-of-the-art equipment and techniques.

Evacuation procedures and the establishment of a naval quarantine/blockade also were employed as part of the training exercise. Under the threat of a simulated wartime condition, evacuation of U.S. citizens was carried out. Concurrently, along a 300-mile arc seaward of Atlantis, four destroyers set up a quarantine.

According to Captain G. M. Carter Jr., Commander Destroyer Squadron 36, "You need three things to carry out an effective quarantine: aircraft, good ships' radar, and good communication."

Since no enemy vessels transited the barrier set up by the destroyers, all three commitments were met.

Early on May 21, Commander Task Force 124 passed the word to "land the landing force." Flight quarters were sounded at 2:30 a.m. It was D-Day off Atlantis and the USS *Guadalcanal* (LPH 7) and USS *Inchon* (LPH 12) were ready.

On the *Guadalcanal,* Commander John Thurston, operations officer, remarked with the confidence born of five similar exercises, "We've never gotten the feet of the Marines wet yet."

Visibility was the main concern of Captain A. W. Crandall, commanding officer of *Guadalcanal.* As it turned out, ground fog limited visibility to 1.5 miles but only two helos in the first wave momentarily couldn't find their landing zones.

Far left. A trailer is loaded aboard a CH-53 Sea Stallion *helicopter on the flight deck of USS* Guadalcanal, *(LPH 7). Left: Marines board a CH-53 to take part in Solid Shield 78.*

For Commander David McCulloch, the ship's air boss, timing was essential. Then, a pilot ready to launch signaled for 1,500 pounds of fuel—a request certain to delay the first wave of helos. But tension quickly turned into relief when the fuel gang reported a faulty fuel gauge. On time, Marines ran across the ship's flight deck to the turning helos.

As the exercise progressed, the ship's medical teams received their first simulated casualties. For Hospital Corpsman Second Class John D. Winchester, it marked the beginning of testing medical procedures proven to have saved lives.

The work carried out with professional assurance on board the *Guadalcanal* during the landing was a microcosm of Navy and Marine Corps activity throughout the operational forces. Sailors and Marines, using Solid Shield as a practice exercise to sharpen personal and fleet readiness, were a study in team cooperation. Solid Shield proved that the ability of the Navy to respond rapidly to any threat depends in great part on the capabilities of our ships and personnel.

As Solid Shield 78 came to a close, Vice Admiral Wesley L. McDonald, Commander Joint Task Force 122 on board USS *Mt. Whitney* (LCC 20), said, "Across the board, the air, subsurface and surface responses by our forces showed outstanding and significant efforts. I was very pleased with the full spectrum of training we achieved." ⚓

Above: USS Mount Whitney *(LCC 20). Top and bottom right: Scenes taken during Exercise Solid Shield.*

ONE NAVY Concept

BY LCDR JAMES A. McCLURE

"General Quarters. All hands man their battle stations.

"Set material condition zebra throughout the ship.

"Now set condition One Mike."

For the Reserve Force ocean minsweepers of Mine Squadron Twelve, Solid Shield was under way.

In their traditional role of leading the fleet, the wooden ships escorted the advance force command ship, USS *Austin* (LPD 4) to a safe anchorage in the practice minefield. Seven minesweepers streamed gear to sweep a 10-square-mile anchorage for the amphibious assault fleet.

Taking part in the three-day sweep were: USS *Dash* (MSO 428), USS *Detector* (MSO 429), USS *Exultant* (MSO 441), USS *Fearless* (MSO 442), USS *Impervious* (MSO 449), USS *Inflict* (MSO 456) and USS *Exploit* (MSO 440). They cleared 45 magnetic and acoustic mines. They streamed a combination sweep to simulate both the magnetic "signature" of a deep-draft ship and the sound of its screws.

Once the minefield had been swept, they laid buoys to mark the limits of the swept area.

A separate minefield seeded with shallow-moored mines was the target of USS *Affray* (MSO 511) which used its mine-hunting sonar to locate and identify the mines. EOD personnel, dropped by parachute, assisted the minesweepers.

Farther out at sea, USS *Adroit* (MSO 509), USS *Engage* (MSO 433) and USS *Fidelity* (MSO 443) cleared mines from below the surface. *Fidelity*, the only active-duty minesweeper involved in the exercise, used an experimental mine neutralization vehicle. This submersible vehicle goes down to take a closer look at a mine and neutralizes it either by laying an explosive charge or by cutting the mine's mooring cable.

In addition to the extensive surface mine countermeasures operations, MINERON Twelve units also coordinated activities with a helicopter mine countermeasures unit.

"We could not have undertaken such an ambitious mine countermeasures operation without the support of our reserve units," Captain Edward F. Jardine Jr., commander of MINERON Twelve, said. "The ships depend on their reserve crews to keep their watch sections up to strength, and reserve officers play a key role in the command and control of the operation."

Two reserve officers served with the MINERON staff embarked in USS *Austin*. Another reserve officer and four enlisted reservists from the staff's reserve component supported operations at the squadron's headquarters in Charleston, S.C.

"Solid Shield confirms that the *One-Navy concept* works—and works well—in the mine force," CAPT Jardine said.

The Reserve Force minesweepers are commanded by active duty officers. Each has an active duty complement of three other officers and 36 enlisted men. The reserve crews, designed to bring the ships up to wartime manning levels, consist of an executive officer, two other officers, and 44 enlisted men.

"These ships have the same operational commitments as an active ship," CAPT Jardine said. "By steaming every reserve drill weekend—and very often steaming with only the nucleus crew aboard—the minesweepers are meeting their commitments." ⚓

Rights & Benefits

Mortgage Insurance Saves Cash

Few subjects discussed on the fantail cause as much angry response these days as the rising cost of housing. In many areas, mortgage payments on a single-family dwelling exceed the base income of lower-ranking Navy,people, and then there are still taxes and insurance to pay.

Uncle Sam can't do anything to lower the price of houses, but he is doing something to take the bite out of mortgage insurance costs for military purchasers. Navy men and women who qualify for and purchase their home with an FHA-insured mortgage loan don't have to pay mortgage insurance premiums. This benefit, paid for by the Department of Defense, could easily save a purchaser several thousand dollars in insurance premiums over the term of a 30-year mortgage.

To qualify for premium-paid mortgage insurance, Navy people—regardless of paygrade—must finance their home with a Federal Housing Administration Section 222 mortgage. Applicants must have completed at least two years of active duty; have a good credit record; have sufficient income to meet mortgage payments, normal household and family expenses; have sufficient cash to pay closing costs and a minimal down payment; and apply for a Certificate of Eligibility (DD Form 802). Application for DD Form 802 is made through the unit commander to the headquarters which maintains the applicant's personnel records.

After a service member has been issued a Certificate of Eligibility, he/she must find a house in the price range and location desired, and then apply for a loan from any FHA-approved lender. Once the application is accepted, the lender processes the mortgage at the prevailing interest rate and makes necessary arrangements with the FHA. Once a mortgage is insured, the interest rate remains the same for the duration of the loan.

As an additional service, FHA offices will provide service members with information about availability of houses in the desired area, price ranges, the local economy, and other factors that may influence a buyer's decision.

An FHA Section 222 mortgage can be used to purchase a one-family dwelling which will be occupied as the service member's personal home. Property being eyed for rental purposes or immediate resale is excluded. The house must be located in the United States, Puerto Rico, Guam, Trust Territory of the Pacific Islands or the Virgin Islands.

Additionally, a Section 222 loan cannot be used to refinance a home which is already owned by a service member. Other requirements and restrictions include:

- Maturity—Maximum maturity of an FHA-insured mortgage is 35 years, or three-fourths of the FHA estimate of the remaining life of the property, whichever is less. The majority of homes insured under Section 222 are for 30 years and an FHA directive provides that a 35-year loan will not be granted if a borrower qualifies for a 30-year loan.
- Amount—The maximum insurable mortgage is $60,000 except in specially designated areas where FHA-insured loans may be as high as $90,000. (Any local FHA office will have current information on these areas.)

While there is no limit on the price a service member can pay for a home, the member must pay in cash any excess over the FHA maximum of $60,000.

- Down payment—A down payment is required on FHA-insured mortgages and is determined by the price of the house, when it was built, and by the FHA's involvement in construction. For example, on a $60,000 home which was built under an FHA preconstruction commitment, the purchaser would have to pay three percent of the first $25,000 and five percent of the value over $25,000.
- Closing costs—These may be paid by the seller or the buyer or a combination of the two.

Since service members are subject to frequent transfers, there comes a time when most members will want to sell their FHA-insured homes. To do this, the member can obtain an FHA conditional commitment through an FHA-approved lender. This conditional commitment, which costs the member about $50.00, will include an estimate of the value of the property. Since the service member's house is covered by an FHA-insured mortgage, the arranging of financing on the house sale is important.

There are two ways an FHA-insured house can be sold:

- The buyer can pay cash or finance the purchase with a new mortgage, ending the service member's liability.
- The buyer can make a down payment of the difference between the selling price and the unpaid mortgage. If the buyer is acceptable to FHA and the lender releases the service member from liability, the lender can substitute the new buyer's name on the mortgage. (If, however, a member sold his property over a year earlier and has obtained a DD 803, FHA would have no objection to processing another application for the member.)

Once either of these two ways of selling has been accomplished, the FHA will consent to the service member's release from liability.

As in all legal matters, Navy men and women considering the purchase of a home should contact the nearest installation's legal assistance office for advice and assistance.⚓

for the Navy Buff

BY JO1 DAN WHEELER

Here again, especially for those who are incurably hooked on nautical trivia, is another installment of FOR THE NAVY BUFF.

Q. *Which American ship was responsible for sinking the heavily damaged* USS Lexington *(CV 2) after the Battle of the Coral Sea?*

A. That sad task fell to USS *Phelps* (DD 360), named for Civil War Admiral Thomas Stowell Phelps and commissioned on Feb. 26, 1936.

Following *Phelps'* shakedown cruise, she escorted USS *Indianapolis* (CA 35), which carried President Franklin D. Roosevelt to the 1936 Inter-American Peace Conference in Buenos Aires.

Undergoing repair in Pearl Harbor on Dec. 7, 1941, *Phelps* was under way in less than five hours and remained on patrol and search missions until Jan. 31, 1942, when she joined Task Force 11, built around *Lexington*. Constantly under attack, *Phelps* was credited with helping destroy 16 enemy planes before returning to Pearl Harbor.

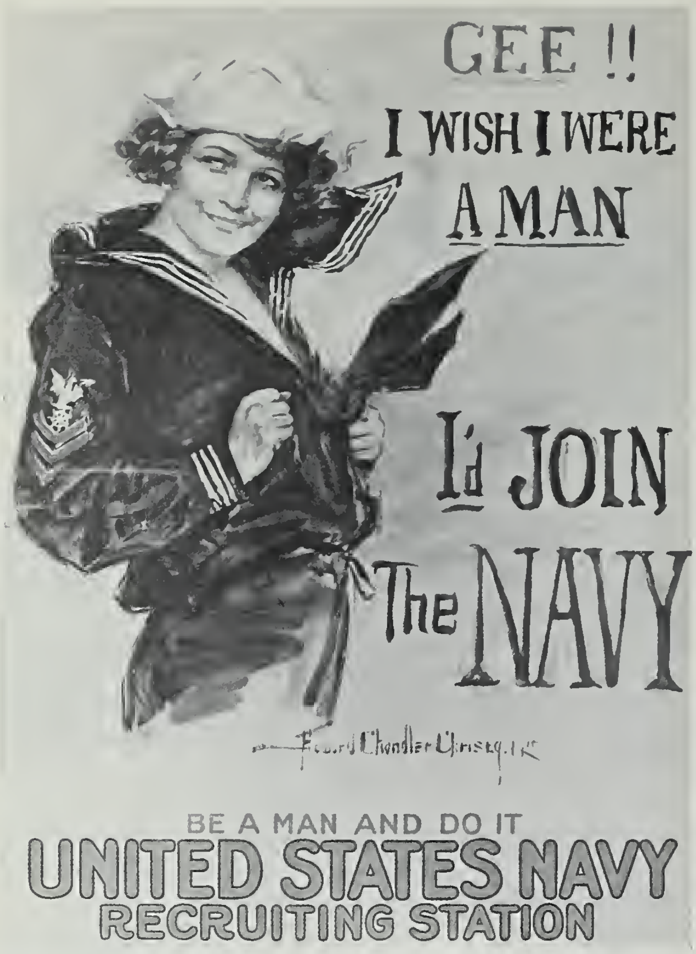
On April 15, 1942, *Phelps* was once again in action off Guadalcanal. From there, she steamed to the Coral Sea, where, in May, it became necessary for her to sink the heavily damaged carrier *Lexington*.

Following Coral Sea, *Phelps* participated in many actions in both the Atlantic and Pacific and was decommissioned on Nov. 6, 1945, a few months after the Japanese surrendered.

Q. *In H.C. Christy's famous World War I Navy recruiting poster bearing the caption, "Gee!! I wish I were a man . . . I'd join the Navy," who was the model?*

A. The 13-year-old model for the 1918 poster is today Mrs. E. Leroy Finch, a grandmother living in Centerport on Long Island, New York. As a teenager, Mrs. Finch acted in movies and posed for several noted artists.

Navy officials credited the Christy poster with attracting thousands of young men into the sea service. Perhaps some of the credit for the poster's success rightly belongs to



Navy recruiters who added to the poster's challenge by including the words "BE A MAN AND DO IT."

The original poster was first presented to the battleship USS *Texas* and today is on exhibit in the U.S. Naval Academy Museum.

Q. *I've often read about and heard sailors talk about "sailing the seven seas." What are they?*

A. The expression "seven seas" dates to ancient times and usually refers to the seas known to the Mohammedans before the 1400s. "Seven" being a magical number thought to indicate completeness, ancients thought their seven seas included all major bodies of water in the world. They were the Mediterranean Sea, Red Sea, East African Sea, West African Sea, China Sea, Persian Gulf and Indian Ocean.

Rudyard Kipling used the term "seven seas" as a title for a book of poems and thus popularized the expression. Today, the seven seas generally are taken to mean the Arctic, North Atlantic, South Atlantic, North Pacific, South Pacific, Indian and Antarctic Oceans.

The International Hydrographic Bureau at Monaco lists 54 seas in the world and some of the seas are seas within seas. For instance, the Mediterranean, according to the bureau, contains seven seas within itself.

Q. *Why is the Cape Hatteras area known as the "graveyard of ships"?*

A. Sudden storms, shifting sandbars and strong currents have earned that appellation for Cape Hatteras. Alexander Hamilton, who sailed past the area while still a young man, was said to have dubbed the area "Graveyard of the Atlantic" and, later, while Secretary of the Treasury, used his influence to have a lighthouse erected there.

In recent times, due to modern navigational aids, considerably fewer casualties occur near the cape, but, being open to the sea for more than 180 degrees, Cape Hatteras is susceptible to severe storms with little warning.

Q. *There has been much talk in recent years about the "law of the sea." When was the first time that laws of the sea were actually compiled and observed?*

A. The first recorded law of the sea was called *Lex Rhodia* and all subsequent maritime jurisprudence is based, at least in part, on this text written in Rhodes around 500 B.C. Rhodes, an island situated at the crossroads of Mediterranean trade routes, was a nation of seafarers whose judgment in maritime matters was considered final.

Though some of the laws enacted by the document have been lost through numerous transcriptions, most of it is intact and considered so reliable that the British High Court of Justice referred to it in a case tried near the end of the 19th century—2,300 years after *Lex Rhodia* was written.

Q. *Lighthouses have always been important to safe coastal navigation—when and where was the first lighthouse erected?*

A. Around 280 B.C., Ptolemy II of Egypt erected a 400-foot-high marble tower on a peninsula called Pharos of Alexandria. That structure became the world's first lighthouse and one of the Seven Wonders of the World. The lighthouse, which became known as the Pharos of Alexandria, acted as a point of reference for shipping during the day and, at night, a fire in its top was a leading mark for ancient navigators.

Q. *On the ancient galleys propelled by sails and oars, how many men did it take to man a single oar?*

A. It depended on the size of the oar. On the double quinquereme *Syracusa*, built for Ptolemy Philadelphis of Alexandria around 250 B.C., there were 10 banks of oars on each side—800 oars in all—manned by 2,000 men. (Single quinqueremes had five banks of oars.) The longest oars, 84 feet, were manned by four men simultaneously; the shortest were 20 feet and manned by one. *Syracusa* is believed to have been capable of carrying 4,000 troops in addition to her rowers. Interestingly, no ship of this size is ever mentioned in ancient records of sea battles, leading most historians to conclude that *Syracusa*-class ships were simply showpieces built to enhance Alexandria's prestige in the ancient world.

Q. *What are the* Rules of Oleron?
A. Around 1200 A.D., Richard the Lion-Hearted of England revised the *Lex Rhodia* (Rhodes' law of the sea). Some major contributions to sea law listed in Richard's *Rules of Oleron* are: owners, masters and merchants are warned not to overload ships; valuables had to be declared to the captain or there could be no replacement or reimbursement in case of loss or damage at sea; ships anchored in port were required to have the crew sleeping aboard; if a crew member missed movement, he earned no pay until he rejoined the ship; all crew members participating in a cruise had to vow to remain with the ship until the voyage's end; and captains were legally responsible for the safety of their crews and admonished not to mistreat ship's company.

Q. *What was the most destructive storm at sea ever recorded?*
A. No way of telling for sure, but one of the most destructive occurred in 1703 in the English Channel. In 24 hours, the English lost 150 merchantmen and 13 warships, most of which were wrecked on the infamous Goodwin Sands.

Q. *Why were the 19th century "clippers" called by that name?*
A. By the mid-1850's, steamships had come into their own right and were able to attain respectable speeds while carrying heavy cargoes. If sailing ships were to compete, shipbuilders had to build bigger and faster ships. The clippers were designed to "clip" days off the time required for voyages by earlier sailing ships, hence the name.

Q. *When was the international distress signal "S.O.S." first used?*
A. At about ten minutes past midnight on April 15, 1912, a wireless operator named Phillips transmitted the official "C.Q.D."—Come Quick, Danger—followed by "MGY"—*Titanic's* call sign. Next, the radio operator transmitted "S.O.S.," a new distress signal never before used. Little more than two hours later, *Titanic* stood perpendicular, with her stern silhouetted against the North Atlantic sky, and slid into the ocean. Fifteen-hundred-and-two persons died in the iceberg-ship collision.

Q. *What is the fastest that a modern ship of considerable size has ever been built?*
A. Ten days. She was the Liberty ship *Joseph N. Teal*, constructed by the Oregon Shipbuilding Corporation, Portland, Ore.

Q. *What is the origin of the "Pledge of Allegiance to the Flag"?*
A. The wording of the pledge used today varies slightly from the original written in 1892 in the office of *The Youth's Companion* magazine in Boston. It was first used in the public schools in celebration of Columbus Day, Oct. 12, 1892.

The pledge received official recognition by Congress in an Act approved June 22, 1942. The phrase "under God" was added by a Congressional Act on June 14, 1954. At that time, President Dwight D. Eisenhower said that "in this way we are reaffirming the transcendence of religious faith in America's heritage and future; in this way we shall constantly strengthen those spiritual weapons which forever will be our country's most powerful resource in peace and war."

Q. *Is it true that the national ensign flown from USS* Missouri's *(BB 63) flagstaff during the formal Japanese surrender ending World War II was not her own, but a flag brought in especially for the occasion?*
A. Yes. It was the flag which flew over the Capitol in Washington the day Pearl Harbor was attacked. This same flag was raised again on Dec. 8, 1941, when war was declared on Japan, and three days later at the time of the declaration of war on Germany and Italy. President Roosevelt called it the "flag of liberation" and carried it with him to the Casablanca Conference and on other historic occasions. That very flag was the one which flew from USS *Missouri's* flagstaff on Sept. 2, 1945, the day Japan formally surrendered to the Allies.

An even more historic flag was used in the Japanese surrender ceremony than the one which flew from *Missouri's* flagstaff. Fleet Admiral William F. Halsey secured the loan of a special flag for the event from the U.S. Naval

Academy in Annapolis, Md., and used it as a backdrop for the ceremony's signing table. It was the flag flown by Commodore Matthew C. Perry on his historic voyage to Japan in 1853 to open that nation to world trade.

(Still another historic flag is the one which flew over Pearl Harbor on Dec. 7, 1941. It also flew above the United Nations Charter meeting at San Francisco and over the Big Three Conference at Potsdam. This flag was flying over the White House on Aug. 14, 1945, the day Japan accepted surrender terms.)

Q. *When were automatic dishwashers first used on Navy ships?*
A. Mess cooks on duty on USS *Missouri* (BB 11) in 1904 were, no doubt, jubilant when Paymaster George P. Dyer brought the first dishwashing machine aboard a Navy ship. Later, he also added the first automatic potato peeler, ice cream mixer, and meat slicer. Those items seemed like godsends to overworked messmen at the turn of the century.

Q. *I've heard that in the early days of the 20th century, "conduct classes" were held aboard Navy ships. What were they?*
A. In those days, conduct classes were in effect aboard Navy ships, but they weren't classes in the sense of school call. According to a man's conduct, he was rated special first class, first class, second class, third class or fourth class. A man's conduct rating affected the amount of shore liberty and the amount of pay he could draw. Special first class men were entitled to get liberty every day while in port; first class received liberty every other day; second class, twice a month; third class, once a month; and fourth class, once every three months. This system was a forerunner of the liberty card system.

Q. *What was the purpose of the rattan cane carried by boatswains in the "Old Navy"?*
A. Early boatswains were appointed by warrant and were among the more important men in the ships. The boatswain was usually a grizzled old salt who wasn't timid about giving orders. He was assisted by his mates and carried a silver boatswain's call and rattan cane that identified his position.

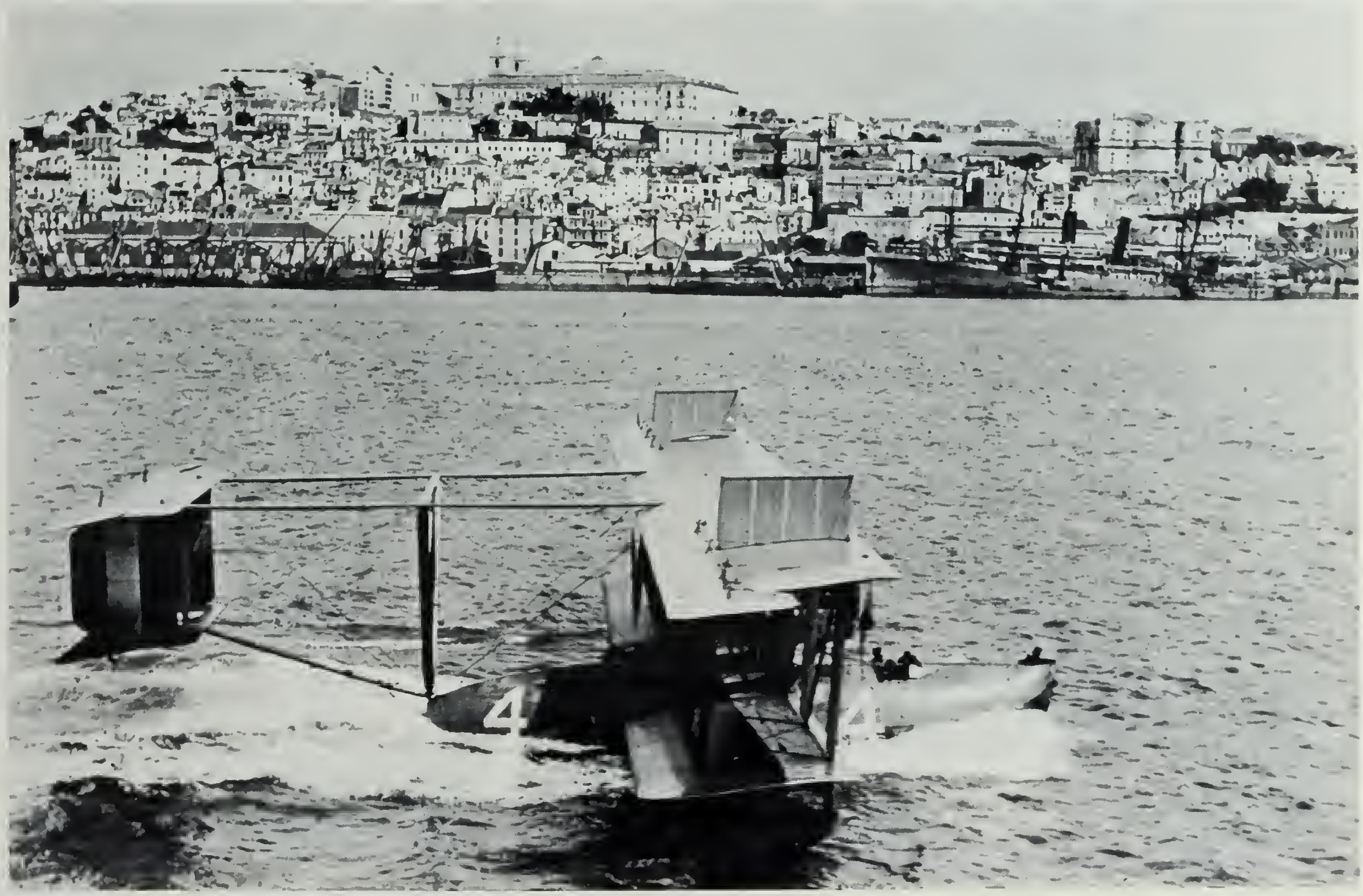
His call (the actual notes are called the pipe) was the sailing ship's PA system, or 1MC. It could be heard 120 feet up in the rigging and down in the deepest, darkest hold. His cane was an instrument of persuasion which, it was said, "cured more scurvy than the doctor, made cripples take up their beds and walk, and made the lame skip and run up the shrouds like monkeys."

Q. *What is a Specialist (X)?*
A. At the outbreak of World War II, the Navy had so many new, emergency ratings that adjustments were necessary to meet technological advances and the specialized needs of a Navy at war. Construction battalion ratings were added and various existing ratings were split into subspecialties. For instance, radiomen were split into radiomen and radio technicians. Later, some radio technicians were transferred to the new sonarman rating. Before World War II, there were 30-odd ratings; by VJ day there were nearly 200 wartime categories.

Because there were so many jobs, the specialist ratings were established, and the famous Specialist (X) rating eventually became the catchall for jobs which could not be fitted elsewhere into the rating structure. There were the Specialist (P)(VM) for V-Mail, the Specialist (P)(MP) for Motion Picture Production, and Specialist (X)(KP) for Key Punch Operator.

Many of these ratings eventually were removed from the X rating and became job specialties of today. One—the Specialist (X)(PI)—didn't survive the transition. SPX(PI)s were pigeon trainers and, appropriately, were assigned to the aviation branch of the Navy.

Q. *Is it true that a Navy plane—and not Lindbergh's*



Spirit of St. Louis—*made the first* solo, *non-stop flight across the Atlantic?*

A: No, not true. However, it was a Navy plane, the Navy flying boat NC–4, which was the first plane to complete a trans-Atlantic flight. She landed in Lisbon, Portugal, on May 27, 1919, and continued on to Portsmouth, England, the entire trip taking less than 71 hours' actual flying time. Though neither solo, nor non-stop, it was still quite a feat for the early days of aviation.

Q. *Just out of curiosity, how much did it cost to build and outfit USS* Constitution?

A. On Oct. 21, 1797, USS *Constitution* slid down her ways, just three years after her keel had been laid. Total cost of the ship, her guns and furnishings was $302,718. We'll leave it to the mathematicians and economists—considering inflation and dollar value—to determine if *Constitution* was actually considerably less expensive to build and outfit than today's modern destroyer.

Q. *USS* Constitution *has been restored and refurbished many times during the last 150 or so years. How much of the original ship still exists?*

A. Today, only about eight percent of the original *Constitution* still exists and much of that is the live oak which has virtually held her together and made restoration possible.

Q. *The famous photograph of the flag-raising on Iwo Jima—was that the first attempt to raise our national ensign on Mount Suribachi?*

A. On Feb. 23, 1945, Marine Colonel Harry Liversedge sent a 40-man detachment from the 28th Marine Regiment to scale Mount Suribachi on Iwo Jima. The detachment was attacked by Japanese survivors still holding out on the opposite side of the volcano and a fierce skirmish developed. In the midst of the battle, a Marine lashed a small American flag to a length of iron pipe and raised it. The flag, which the Marine had carried in his pocket, was too small to be seen from a distance.

Commodore Stephen Decatur

Meanwhile, a larger flag was on its way up the mount; it was the battle ensign from LST 779, beached near the base. A Marine carried it up the mountain and an AP photographer, Joe Rosenthal, arrived just in time to shoot the famous picture of the second flag-raising on Iwo Jima. Three of the six Marines who raised it died in subsequent fighting.

Q. *How large was the U.S. Navy, in terms of manpower, when World War II ended?*
A. When World War II began, the Navy had a total manpower strength of about 750,000; the Marine Corps—part of the Navy in time of war—about 28,000. On Aug. 31, 1945, the Navy had 316,675 male officers, 8,399 female officers, 2,935,695 enlisted men, and 73,685 enlisted women; the Marines had 36,851 male officers, 813 female officers, 427,017 enlisted men, and 17,350 enlisted women.

Q. *What is the story behind the Decatur-Barron duel in which Decatur was mortally wounded?*
A. The duel which was fought on March 22, 1820, between Commodore Stephen Decatur and Commodore James Barron actually was precipitated by an event which occurred in 1807. Barron was the CO of *Chesapeake*. En route to the Mediterranean, *Chesapeake* was stopped by the British frigate *Leopard* which demanded the return of several alleged deserters from the British navy. Barron refused to comply and *Leopard* opened fire. The American sailors were thrown into confusion and Barron surrendered *Chesapeake* to prevent her destruction.

Before *Chesapeake* struck her colors, Lieutenant William H. Allen fired a single shot and protested the surrender of *Chesapeake* without a fight. The British seized four sailors and *Chesapeake* limped into Hampton Roads, severely damaged.

The impressment caused a public outcry and was one of the more important events leading to the War of 1812. As a result of LT Allen's accusations against Barron. Barron was court-martialed in 1808 for negligence and cowardice. Acquitted of the cowardice charge. Barron was convicted of negligence and suspended from duty for five years. during which time he served in the French navy.

When Barron returned to the U.S. Navy. he found that he was denied command at sea and advancement in rank. Frustrated and bitter about the *Leopard* affair and what he considered unwarranted stifling of his career. Barron accused Commodore Decatur of leading the intrigue against him. Subsequently. Barron challenged Decatur to a duel in which Decatur was killed and Barron badly wounded.

Barron recovered from his wounds but found himself universally condemned and an outcast. He was on inactive status in the Navy until his death in 1851. The one good thing that did come out of Barron's duel with Decatur is that following the death of Decatur. the Navy outlawed dueling in the service.

Q. *Is it true that commanding officers in the early days of steam had to pay for the coal used for official purposes on Navy vessels?*
A. Yes and no. Within one year following the Civil War. the Navy was reduced from 626 vessels to a paltry 30. The ensuing 20 years are often referred to as the doldrums of the Navy. Most of its ironclads were scrapped or sold. and steamship captains were ordered to use sail power exclusively unless circumstances dictated the use of their ship's steam engines. If, upon return to port. the Navy Department didn't agree that the use of the ship's engines had been justified. the commanding officer was charged for coal his ship had used.

Q. *Why is it considered not nautical to whistle on Navy ships?*
A. There's an old Navy saying: "Only damn fools and boatswain's mates whistle." Though Naval Regulations do not forbid whistling aboard ships, it has always been considered unseamanlike and contrary to tradition and custom to whistle while on duty at sea. So strong was this admonition that some Navy officers even forbade it on land, as in the case of Captain W. W. Gilmer, naval governor of Guam, who issued this order: "The practice of whistling is an entirely unnecessary and irritating noise which must be discontinued."

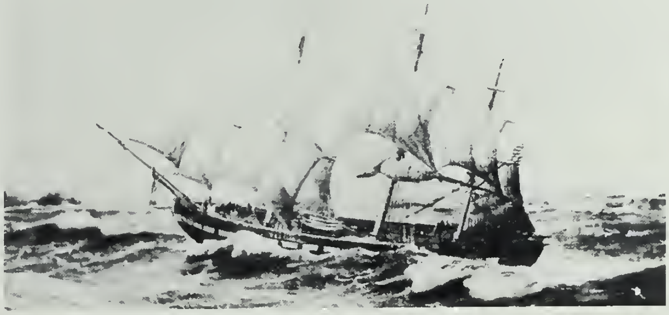
Authorities generally agree that whistling was originally forbidden for a good reason. In sailing ships, it was necessary to remain as quiet about the decks as possible to hear orders above the sound of the wind, especially if sailors were aloft. Another reason for the prohibition was to prevent a sailor from hearing a few notes of someone else's tune, think it was from a bosun's call, and, consequently, take action endangering the crew.

There were times, however, when whistling was allowed. When a sailing vessel was becalmed, sailors were encouraged to "whistle up a wind." The theory was that whistling incited the wind gods and caused them to make the wind blow. Once the sails began to billow, however, the order was immediately passed to "belay whistling" and turn-to.

Stern Shots

This is a month for naval "firsts." In the photographs below, see how many of the historical occasions you recognize. Each took place for the first time in October. We've made it easy by putting the photographs in chronological order, so name the naval ship as well as the event.

A



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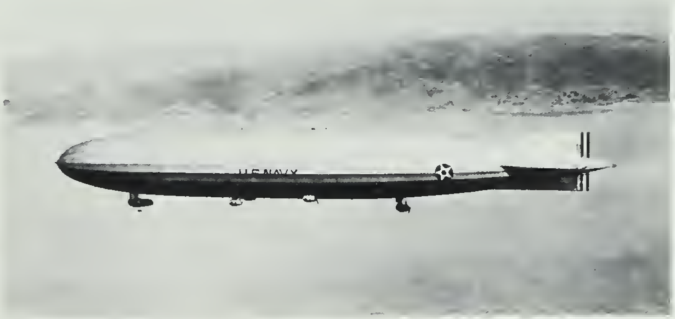

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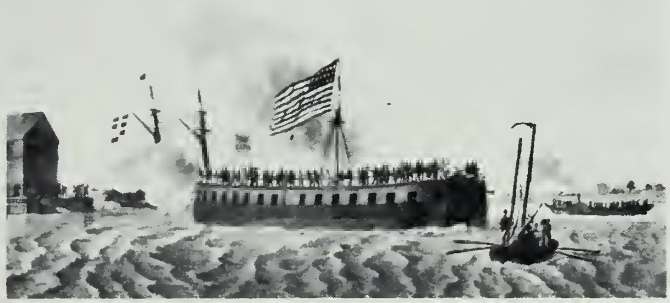

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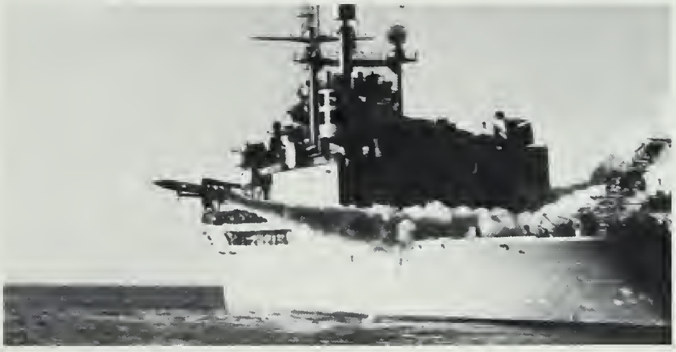

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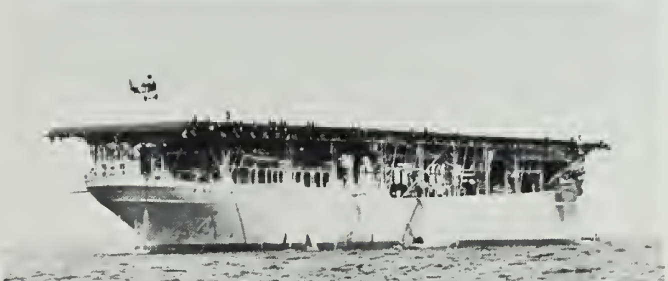
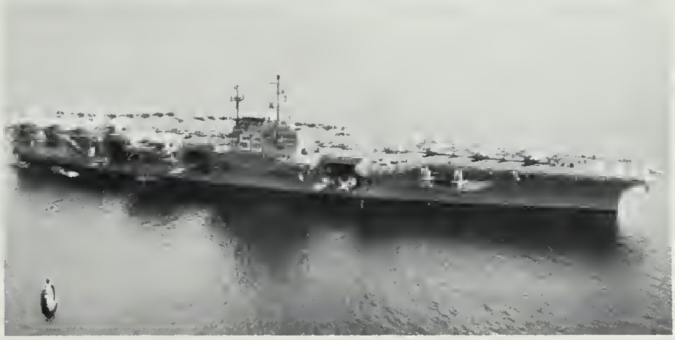


F



Answers: A – First U.S. Navy cruise began into Pacific Ocean by frigate USS *Essex* (Oct. 27, 1812); B – USS *Fulton*, first steam warship is launched (Oct. 29, 1814); C – first carrier takeoff made by airplane from USS *Langley* (CV 1) (Oct. 17, 1922); D – First American-built airship, USS *Shenandoah* (ZR 1), commissioned as a combatant ship (Oct. 10, 1923); E – first guided missile experimental and test ship, USS *Norton Sound* (AVM 1), placed in operation (Oct. 1, 1948); F – first "super" carrier, USS *Forrestal* (CV 59) commissioned (Oct. 1, 1955).

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At left: USS *Mississippi* (CGN 40) during trials off Virginia coast. Newport News Shipbuilding and Dry Dock photo. See page 12.

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Currents

Congressional Wrap-up ● New sea pay rates and a change to the U. S. Code which will allow women to serve in some Navy ships were two important measures passed by Congress before it adjourned last month. As a result, 430 women will report for sea duty aboard 21 Navy ships in the next year. Ultimately, the Navy plans to assign 4,950 enlisted women and 204 female officers to non-combatants. Congress also increased sea pay for seagoing petty officers based on cumulative years of sea duty. A grandfather clause will protect non-petty officers currently receiving sea pay. Congress authorized renewed payment of enlistment and selective re-enlistment bonuses (SRB/EB) and special pay for health professionals, both of which were suspended on Oct. 1. A nuclear-powered aircraft carrier was not included — nor was a measure to consolidate basic helicopter pilot training for the Army and Navy. Approval was given for construction of 13 new ships and 104 aircraft, including nine F-18s and 36 F-14s. An amendment which would permit abortions in military hospitals under specific circumstances also was approved. Congress authorized $95 million for development of the light airborne multi purpose system (LAMPS) Mk III program, and another $80 million for development of the surface effect ship (SES) program.

New Ensign To LTJG Promotion Policy Outlined ● Promotions from ensign to LTJG now are effective only after Senate confirmation of regular officers and acceptance in writing by all ensigns being promoted. It's a two-step process. First, the Senate must confirm the appointment of any regular officer. Second, the officer, whether regular or reserve, must sign an acceptance of promotion on the day of eligibility. To ensure officers are notified in advance, BUPERS will send out monthly ALNAVs listing ensigns authorized for LTJG promotion. Further information about the new policy is contained in ALNAV 046/78.

CNO Cancels 94 Required Reports ● Chief of Naval Operations Admiral Thomas B. Hayward has ordered cancellation of 94 recurring reports and taken steps to cut back on another 76 reports. CNO took the action after a review board recommended cancellation of 194 reports required of the operating forces. The cancellations are a part of the program to reduce the administrative burden on fleet units. The complete list of cancelled reports is contained in NAVOP 97/78.

SecNav Energy Conservation Award Winners Announced ● Secretary of the Navy W. Graham Claytor Jr. announced winners of the first annual Secretary of the Navy Energy Conservation Awards for 1978. Ships (large) — USS *John F. Kennedy* (CV 67); Ships (small) — USS *Blakely* (FF 1072); Aviation Squadrons — Air Test and Evaluation Squadron One (VX 1); Navy Shore Activities (large) — Pacific Missile Test Center, Point Mugu, Calif.; Navy Shore Activities (small) — NavSecGruAct, Winter Harbor, Maine; Naval Industrial Facilities—Pearl Harbor Naval Shipyard, Pearl Harbor, Hawaii.

New CNO Sitrep 30 Film Series In Distribution ● The first CNO Sitrep 30, a regular Navy news and feature presentation in film and videotape format, is on its way to fleet activities. The new CNO Sitrep 30 covers a variety of topics in a 30-minute program.

New No-Smoking Regs In BuMed Buildings ● BuMed has established a no-smoking policy in its elevators, shuttle vehicles, auditoriums, conference rooms and classrooms. No-smoking signs soon will be posted and ash trays will be removed from areas no longer designated for smoking. Naval hospitals, regional medical and dental centers, and regional medical clinics are some of the BuMed activities affected by the new regulations. Smoking will still be permitted in private offices, staff lounges and other designated areas. In work areas shared by smokers and non-smokers, smoking will be permitted only if ventilation can remove the smoke from the work area. Smoking by non-patient personnel is prohibited in patient care areas. Patients may smoke in designated areas, but will be discouraged from smoking at all. BuMed Instruction 6200.10, which outlines details of the program, directs health care professionals in the Navy medical department to lead the way in encouraging programs and procedures which will decrease smoking.

Air Training Command Receives Top Priority ● Jet aviators in the grades of lieutenant commander and below who are not actively involved in the operation of jet aircraft are being screened for possible reassignment to instructor duty. Instructor pilot manning has received top priority recently because of a lower than planned pilot training rate. As a result, the Naval Air Training Command is increasing the number of instructor pilots by about one-third. The additional instructors are being recalled from the fleet, and the Naval Reserve. They also are being selected from newly designated flight training graduates and aviators in shore billets not directly involved in flying. Jet pilots in naval postgraduate school, service colleges and other duty under instruction assignments, as well as those scheduled for rotation to sea duty before next January, are exempt from this program. Aviators selected for instructor duty will be contacted both through their commands and directly by their detailers. Pilots who wish to volunteer for the program are encouraged to contact their detailers. Instructors will serve 14- to 18-month tours and will receive a guaranteed operational assignment following the tour at Naval Air Training Command. Propeller and helicopter pilots will continue to receive fleet assignments upon designation as naval aviators.

Third Shipbuilding Claim Settlement Announced ● With the signing of a claims settlement with Newport News Shipbuilding and Dry Dock Company announced recently, the Navy has settled the last of $2.7 billion in contract claims with its three major shipbuilders. In June, the Navy settled contract disputes with Litton Industries and General Dynamics. Under the most recent settlement, the Navy will pay approximately $165 million of the $742 million in claims filed by Newport News during 1975 and 1976. The settlement resolved claims and contract issues involved in the construction of 13 nuclear-powered attack submarines, guided missile cruisers and aircraft carriers.

Maternity Uniform Allowance Approved ● A $36 maternity uniform allowance for pregnant enlisted women has been authorized effective Oct. 1. Optional wear of either the maternity uniform or appropriate civilian attire is permitted through the remainder of this year. Women who will be released from active duty before Jan. 1, 1979, may not draw the maternity uniform allowance. After Jan. 1, wear of the maternity uniform will be mandatory for all pregnant women in the Navy when a uniform is prescribed and regular uniforms no longer fit.

Belleau Wood Commissioned ● USS *Belleau Wood* (LHA 3), third of five in a new class of amphibious assault ships, was commissioned in Pascagoula, Miss., on Sept. 23. Vice Admiral James B. Stockdale, President of the Naval War College, was principal speaker at the ceremony. *Belleau Wood*'s primary mission is amphibious assault. The ship can embark, deploy and land a fully equipped Marine assault force by helicopter, landing craft or a combination of the two. Armament includes three lightweight five-inch/54-caliber guns, air defense missiles and six 20mm machine guns.

Commissary Bagger Fees Delayed Until December 31 ● Baggers at Navy commissary stores in the U. S., Guam and Puerto Rico will continue to receive just tips through Dec. 31 this year. The shift to salaries was originally scheduled to take place on Sept. 30. The second postponement will give Congress time to complete action on a proposal which would exempt baggers in armed forces commissaries from coverage under the Fair Labor Standards Act. If the legislation is passed, baggers would continue to receive tips only. An earlier ruling would have made baggers salaried employees and charged commissary store shoppers up to two percent extra on their grocery bills for the bagging service.

Civil Service To Begin "Flextime" Experiment ● Some U. S. Government activities will begin experimenting with flexible work hours for their civilian federal employees next year, including such variations as four, 10-hour-day work weeks. The Civil Service Commission will study the effects of "flextime" plans on efficiency, service to the public, use of mass transit facilities, energy consumption, full-time and part-time employment opportunities, and individuals and families.

Navy Runners First And Second In Military At Athens Marathon ● Lieutenant Paul M. Nichols from Naval Communications Station, Rota, Spain, finished first among military runners and 14th overall in the annual Athens Marathon race held in Greece on Oct. 9. The 39-year-old Nichols completed the 26-mile footrace with a time of two hours and 43 minutes. Placing second among military runners and 20th overall was Electronics Technician Second Class Kevin J. Setnes of Naval Communications Area Master Station Mediterranean, Naples, Italy. The 83 Navy runners represented shore commands throughout Europe, and fleet units USS *Albany*, USS *Canopus* and USS *Forrestal*.

Monthly basic pay effective 1 October 1978

Years of service

Commissioned Officers

PAY GRADE	UNDER 2	2	3	4	6	8	10	12	14	16	18	20	22	26
0-10	3298.20	3414.30	3414.30	3414.30	3414.30	3545.10	3545.10	3816.90	3816.90	4089.90*	4089.90*	4363.50*	4363.50*	4635.60*
0-9	2923.20	3000.00	3063.60	3063.60	3063.60	3141.90	3141.90	3272.10	3272.10	3545.10	3545.10	3816.90	3816.90	4089.90*
0-8	2647.50	2727.00	2791.80	2791.80	2791.80	3000.00	3000.00	3141.90	3141.90	3272.10	3414.30	3545.10	3687.30	3687.30
0-7	2199.90	2349.60	2349.60	2349.60	2454.90	2454.90	2597.40	2597.40	2727.00	3000.00	3206.10	3206.10	3206.10	3206.10
0-6	1630.50	1791.90	1908.60	1908.60	1908.60	1908.60	1908.60	1908.60	1973.40	2286.00	2403.00	2454.90	2597.40	2817.00
0-5	1304.40	1531.80	1637.40	1637.40	1637.40	1637.40	1687.20	1777.50	1896.30	2038.50	2155.80	2220.60	2298.30	2298.30
0-4	1099.50	1338.30	1428.00	1428.00	1454.10	1518.90	1622.10	1713.60	1791.90	1869.90	1922.10	1922.10	1922.10	1922.10
0-3	1021.80	1142.10	1220.70	1350.90	1415.40	1466.70	1545.30	1622.10	1662.00	1662.00	1662.00	1662.00	1662.00	1662.00
0-2	890.70	972.90	1168.80	1208.10	1233.00	1233.00	1233.00	1233.00	1233.00	1233.00	1233.00	1233.00	1233.00	1233.00
0-1	773.10	804.90	972.90	972.90	972.90	972.90	972.90	972.90	972.90	972.90	972.90	972.90	972.90	972.90

Commissioned Officers with over 4 years' active service as enlisted members

PAY GRADE	UNDER 2	2	3	4	6	8	10	12	14	16	18	20	22	26
0-3	0.	0.	0.	1350.90	1415.40	1466.70	1545.30	1622.10	1687.20	1687.20	1687.20	1687.20	1687.20	1687.20
0-2	0.	0.	0.	1208.10	1233.00	1272.30	1338.30	1389.90	1428.00	1428.00	1428.00	1428.00	1428.00	1428.00
0-1	0.	0.	0.	972.90	1039.20	1077.60	1116.60	1155.60	1208.10	1208.10	1208.10	1208.10	1208.10	1208.10

Warrant Officers

PAY GRADE	UNDER 2	2	3	4	6	8	10	12	14	16	18	20	22	26
W-4	1040.70	1116.60	1116.69	1142.10	1194.30	1246.80	1299.00	1389.90	1454 10	1505.70	1545.30	1596.00	1649.40	1777.50
W-3	946.20	1026.30	1026.30	1039.20	1051.50	1128.30	1194.30	1233.00	1272.30	1310.40	1350.90	1403.10	1454 10	1505.70
W-2	828.60	896.10	896.10	922.20	972.90	1026.30	1065.00	1104.00	1142.10	1182.00	1220.70	1259.40	1310.40	1310.40
W-1	690.30	791.70	791.70	857.40	896.10	934.80	972.90	1013.10	1051.50	1090.20	1128.30	1168.80	1168.80	1168.80

Enlisted members

PAY GRADE	UNDER 2	2	3	4	6	8	10	12	14	16	18	20	22	26
E-9	0.	0.	0.	0.	0.	0.	1182.30	1209.30	1236.90	1265.40	1293.30	1318.50	1388.10	1522.80
E-8	0.	0.	0.	0.	0.	992.10	1019.70	1047.00	1074.60	1102.50	1128.00	1155.90	1223.70	1360.20
E-7	692.70	747.60	775.50	802.20	830.10	856.20	883.50	911.10	952.20	979.20	1006.80	1019.70	1088.40	1223.70
E-6	598.20	652.20	679.50	708.00	734.40	761.40	789.30	830.10	856.20	883.50	897.00	897.00	897.00	897.00
E-5	525.30	571.50	599.40	625.50	666.30	693.60	721.20	747 60	761.40	761.40	761.40	761.40	761.40	761.40
E-4	504.90	533.10	564.30	608.40	632.40	632.40	632.40	632.40	632.40	632.40	632.40	632.40	632.40	632.40
E-3	485.40	512.10	532.80	553.80	553.80	553.80	553.80	553.80	553.80	553.80	553.80	553.80	553.80	553.80
E-2	467.40	467.40	467.40	467.40	467.40	467.40	467.40	467.40	467.40	467.40	467.40	467 40	467.40	467.40
E-1	419.40	419.40	419.40	419.40	419.40	419.40	419.40	419.40	419.40	419.40	419.40	419.40	419 40	419.40

While serving as Chairman of the Joint Chiefs of Staff, Chief of Staff of the Army, Chief of Naval Operations, Chief of Staff of the Air Force, or Commandant of the Marine Corps, basic pay for this grade is $5,114.70 regardless of cumulative years of service (See * below).

* Basic pay is limited to $3,958.20 by Level V of the Executive Schedule.

Highest Enlisted Rank. While serving as Sergeant Major of the Army, Master Chief Petty Officer of the Navy, Chief Master Sergeant of the Air Force, or Sergeant Major of the Marine Corps, basic pay for this grade is $1,851.00 regardless of cumulative years of service.

OASD (MRA&L) MPP
Compensation
1 October 1978

Monthly basic allowance for quarters rates

Pay Grade	Without Dependents Full Rate[1]	 Partial Rate [2]	With Dependents
Commissioned Officers			
0-10	$357.90	$50.70	$447.60
0-9	357.90	50.70	447.60
0-8	357.90	50.70	447.60
0-7	357.90	50.70	447.60
0-6	321.30	39.60	391.80
0-5	296.10	33.00	356.70
0-4	263.70	26.70	318.30
0-3	231.90	22.20	286.20
0-2	201.30	17.70	254.70
0-1	156.90	13.20	204.60
Warrant Officers			
W-4	$254.10	$25.20	$306.60
W-3	226.50	20.70	279.30
W-2	197.10	15.90	250.50
W-1	177.90	13.80	230.40
Enlisted Members			
E-9	$191.70	$18.60	$269.70
E-8	176.70	15.30	249.30
E-7	150.30	12.00	231.90
E-6	136.50	9.90	213.30
E-5	131.10	8.70	195.90
E-4	115.80	8.10	172.50
E-3	103.50	7.80	150.30
E-2	91.50	7.20	150.30
E-1	86.40	6.90	150.30

[1] Payment of the full rate of basic allowance for quarters at these rates for members of the uniformed services to personnel without dependents is authorized by 37 United States Code 403 and Part IV of Executive Order 11157, as amended.

[2] Payment of the partial rate of basic allowance for quarters at these rates to members of the uniformed services without dependents who, under 37 United States Code 403(b) or 403(c), are not entitled to the full rate of basic allowance for quarters, is authorized by 37 United States Code 1009(d) and Part IV of Executive Order 11157, as amended.

Basic allowance for subsistence rates

Officers:	$62.80 per month	
Enlisted Members:		
When on leave or authorized to mess separately:	$ 3.00	per day
When rations in-kind are not available:	$ 3.38	per day
When assigned to duty under emergency conditions where no messing facilities of the United States are available:	$ 4.48	per day

WOMEN on SEA DUTY

President Carter's signature on the most recent Department of Defense Authorization Bill (see Currents in this issue) has, among other things, opened up a course staked out by Navy planners over the past two years: the assignment of Navy women aboard ship for duty.

Included in that bill—which provides Fiscal Year 1980 operating funds to the military services—is a Navy-sponsored amendment to Section 6015, Title 10, U.S. Code. That law prohibited assigning women to aircraft and ships other than hospital ships and transport vessels, neither of which the Navy now has in commission.

Now, women may be assigned to sea duty aboard auxiliary and noncombatant ships and to temporary additional duty (for six months or less), on any ship, submarine or squadron not expected to be assigned a combat mission during the period.

The Navy drafted and sponsored the amendment because of the national goal to ensure equal opportunity for women throughout the work force and the projected decrease in the number of males available to recruit in the 1980s and beyond.

The effects of the amended law are many and range Navywide, not the least of which will be expanded career opportunities for Navy women.

Career Opportunities

In the wake of the amendment's passage, five additional ratings will be opened to enlisted women: instrumentman, molder, opticalman, patternmaker and precision instrumentman. This will leave only 11 ratings in the Navy closed to women. Those closed ratings are all seagoing or combat-related jobs.

Increasing the number of ratings and seagoing billets open to enlisted women also requires a proportionate increase in the number attending Class "A" schools as well as sea duty training programs such as firefighting and damage control. Additionally, plans are being developed to eventually train all women E-5 and above in possession of orders to shipboard duty, in Leadership and Management Education and Training (LMET).

For women officers who have not previously attended the course, attendance at Surface Warfare Officer School will be required for unrestricted line officers en route to a shipboard billet. The change in law also means women will be eligible to command non-combatant ships authorized for permanent assignment of women and for which they have the requisite seniority and experience.

Women not assigned to a permanent sea duty billet may also find themselves performing periods of temporary additional duty (TAD) aboard ships for a variety of reasons.

- Enlisted women may go TAD for at-sea experience and on-the-job training; for ship's force augmentation during fleet exercises, carrier qualifications, inspection and survey trials or during overhaul; as members of operational test and evaluation forces conducting research and development functions; and to assist ships as members of mobile training units and ship's qualifications assist teams.
- Women officers will be eligible for seagoing TAD for the above reasons plus for midshipman training; basic Surface Warfare Officer training; pilot training; fleet exercises; intelligence gathering missions; inspection teams and staff corps augmentations (such as in medical and supply departments).

Women in the Navy

Expanded career opportunities for Navy women plus the decreasing number of enlistment-eligible males over the next few years will mean a doubling of the number of women now on active duty in the Navy to a projected 40,000 female members by 1983. During this same period, the number of shipboard duty enlisted women will go from this year's 375 to 4,950. For women officers, the numbers assigned to shipboard billets will go from 55 to 204.

And while duty aboard ship will not be a prerequisite for promotion or advancement of Navy women, it will enhance the competitiveness of Navy women relative to men in certain career fields or ratings which are more directly related to sea assignments.

Lessons Learned

A few years ago, the Navy hospital ship USS *Sanctuary* was decommissioned and her male and female crew—the first in Navy history—was dispersed. The lessons Navy planners learned from their first experience with mixed crews have worked as a positive framework for developing the present plan to assign women aboard ship.

That's why the assignment of Navy women to five ships this year cannot be called an experiment. It is part of a highly structured plan to integrate women into the seagoing Navy. And Navy planners are convinced it will be successful, based on the USS *Sanctuary* experience and the reports from the Coast Guard, which recently assigned women aboard their ships.

While aboard *Sanctuary*, Navy women demonstrated their ability to perform shipboard functions with ease, expertise and dedication equal to that shown by men, according to reports of the integration of that hospital ship.

The First Year

During the coming year, about 16 women officers and 375 enlisted women will be permanently assigned to the crews of four ships: USS *Vulcan* (AR 5), USS *L. Y. Spear* (AS 36), USS *Norton Sound* (AVM 1) and USS *Samuel Gompers* (AD 37) and a fifth ship to be named at a future date.

These ships were selected because:

- They are representative of the various hull types which were approved for women under the legislation.
- They needed little in the way of modifications to their berthing spaces to accommodate women; therefore, minimum cost was involved.
- They geographically represent both U.S. coasts.

An additional 16 ships have been tentatively slated to receive 39 women officers. Because of accommodations and inventory constraints, enlisted women will not be assigned to these ships during the first year.

Currently, the Navy inventory shows 49 ships that could feasibly include women in their crews under the provisions of the law. By Fiscal Year 1983, Navy planners see this number of eligible ships growing to 62.

In staffing the ships, planners are seeking a 25 percent minimum level within ratings. During the first year of the program, however, only 10 percent of the crews will be women. This is due to a shortage of enlisted women in skills previously not performed by women or considered non-traditional in the past, the small number of senior female petty officers, and the need for female officers to acquire sea experience before assignment to senior leadership positions.

Most of the women initially going to sea are volunteers solicited earlier this year. This gives highly motivated women desiring such duty the opportunity to serve in the first, limited number of female sea billets. Future assignments will be made of those reaching their projected rotation date, just as male assignments are presently made.

It is important, therefore, for Navy women to have a current Enlisted Duty Preference Card (NAVPERS

1306/63) on file with their detailer that also indicates ship type and homeport duty preferences.

Other detailing requirements of assigning women to sea are:

- Pregnant women will not be assigned to sea duty. Women who discover their pregnancy after assignment will be transferred to shore duty at an appropriate time determined by the commanding officer and the Bureau of Naval Personnel.
- Husbands and wives will not be assigned duty aboard the same ship but will continue to be assigned the same home port as provided for by current policy.
- Women with dependents will be eligible for sea duty just like their male counterparts.

As mentioned, entrance of women into the previously all-male environment of life at sea will mean physical changes to the ships involved.

Women assigned to sea duty will find separate but equal berthing and head facilities. Basically, the only major modifications necessary will be to close off berthing compartments, reroute the traffic which commonly runs through those berthing spaces, and modify the plumbing in heads adjoining women's berthing areas. Since no barber facilities will be available exclusively for women and commercial hair dryers will not be installed in the "unisex" shops, electrical outlets for portable hair dryers will be installed. The laundry facilities will not be changed. However, procedures will be updated and better detergents will be used for washing more delicate fabrics.

Medical Aspects

When women go to sea, a prime consideration will be their continued good health and well-being. The impact this will have on medical and dental departments has been evaluated with the following conclusions:

- Since a tooth is a tooth, the dental department will not be affected except for the assignment of female dentists (when possible) and dental technicians as ship's company.
- Some sick bay areas may have to be modified to permit the installation of obstetric/gynecological examination tables. Unlike standard examination tables, ob/gyn tables in use today do

not have drop leaves to conserve space when not in use. Also, an increase in the size of sick bays will allow for the addition of screens, partitions, etc., to maintain privacy.

- General medical officers can recognize problems or treat ob/gyn emergencies, so no additional training is anticipated.
- BUMED regulations require the presence of another female whenever a doctor conducts breast or pelvic exams.
- Just as it's done on shore stations, birth control pills/contraceptive devices can be prescribed by the ship's doctor when requested. Corpsmen, naturally—even those on independent duty—cannot write such prescriptions. Female crew members stationed aboard ships without doctors can go to a local base dispensary for such treatment.
- Aboard ship, the potential for exposure to toxic substances is high. Such exposure could be harmful to a pregnant woman and/or her unborn child. It will be the responsibility of the medical department to impress upon female crew members the immediacy of reporting or confirming suspected pregnancies.
- In the past, female corpsmen have been accepted for independent duty training in limited numbers, with the predominance of graduates being men going to small ships or submarines. Independent duty training has been modified to include more ob/gyn treatment, and women are attending the school in increasing numbers. BUMED officials state that they will continue to rely on air evacuation capabilities ". . . which, in 12 hours or less, can deliver an emergency case to treatment from anywhere in the world." However, after the program is modified, corpsmen who have been through independent duty training should be able to recognize ob/gyn symptoms and take action before such a situation becomes an emergency.

Well-Balanced Force

The assignment of women to sea duty is an indication of the Navy's commitment to provide equal career opportunities for all its personnel. But the military professionalism and preparedness of Navy men and women will still be paramount in the assignment/promotion processes. Male and female, members of a ship's company will be expected to carry out assigned duties and, therefore, add positive support to our flexible and well-balanced naval force.

Chronology of Navy Women

1860s

Four civilian nurses from the Sisters of the Holy Cross serve aboard the Navy hospital ship USS *Red Rover* in the Civil War.

1908

Navy Nurse Corps founded.

1913

Navy nurses first serve aboard

ship—the transports USS *Mayflower* and USS *Dolphin*.

1916

Women are accepted into the regular Navy (other than the Nurse Corps) for the first time during World War I. Called Yeomen (F) or Yeomanettes, their numbers reach 11,000 before the war ends (disestablished in 1919).

1920

Navy nurses first serve aboard a hospital ship, the USS *Relief* (AH 1).

1941

Japanese attack Pearl Harbor and five Navy nurses on Guam are captured, becoming the first female prisoners of war from the U.S. Navy.

1942

Women Accepted for Voluntary Emergency Service (WAVES) is formed. The WAVES were designated a permanent but separate part of the Navy in 1948. The title fell by the wayside in 1973 when women were fully integrated into the Navy's organizational structure.

1943

Women are enlisted into the Navy Hospital Corps for the first time.

1944

The first Hospital Corps School for Reserve enlisted women is commissioned at the Bethesda Naval Medical Center.

1948

Title 10, USC 6015, is enacted, prohibiting women in the Navy from serving aboard other than hospital and transport ships.

1949

Hospital Corps Schools at Great Lakes and at San Diego are made coeducational.

1952

Navy women are accepted for commissions in the Medical Service Corps. They are trained exclusively as physical therapists, dietitians and occupational therapists.

1953

Congress passes a bill permitting Hospital Corps women to volunteer for sea duty aboard transport ships operated by the Military Sea Transportation Service (now MSC).

1960

Women of the Medical Specialist Section, along with women officers in the fields of medically allied sciences, are brought under the same promotion laws which governed male officers of the Medical Service Corps.

1961

Lieutenant Charlene Suneson assigned as first woman line officer to sea duty aboard the Military Sealift Command transport vessel USNS *William A. Mann* (T-AF 12).

1970

Lieutenant Helen M. Paulus becomes the first woman dentist in the regular Navy (there were two women Naval Reserve dentists on active duty during World War II).

1972

Hospital Corps detailing is consolidated and assignments are made without regard to sex except in such cases as submarines, diving duty and other specialized duty.

Alene Duerk becomes the Navy's first woman flag officer (Nurse Corps).

Lieutenant Ann J. Moriarity reports to Naval Advisory Forces in South Vietnam as the Navy's first woman naval advisor in Vietnam.

Women officers and enlisteds in other than medical billets are assigned to the hospital ship USS *Sanctuary* in a pilot program to gain experience regarding the employment of women at sea in a non-medical environment.

Admiral Elmo Zumwalt Jr., then Chief of Naval Operations, issues Z-Gram 116, called by some the Navy's own "Equal Rights Amendment" which authorizes "limited entry of enlisted women" into most Navy ratings.

Seventeen women at four universities become the first women to enroll in the Navy's NROTC program and receive full scholarships.

1973

First coed class in the history of Naval Officer Candidate School, Newport, R.I., is graduated.

Six Navy women become the first to win their wings and be designated naval aviators.

1975

Navy women who become pregnant while on active duty are no longer automatically discharged from the service. Instead, they are retained on active duty unless they voluntarily elect discharge.

1976

Time magazine names Lieutenant Commander Kathleen Byerly as one of its "12 Women of the Year—1975."

Fran McKee becomes the first Navy woman line flag officer.

Women officers are allowed to enter all restricted line communities via initial commissioning programs or lateral transfers for the first time.

The first three Navy enlisted women are graduated from the Naval Academy Prep School, Newport, R.I.

First women enter the U.S. Naval Academy as members of the class of 1980.

1977

Proposal to amend Title 10, USC 6015, to permit women to serve aboard ships other than hospital and transport ships is sent from the Department of Defense to the House Armed Services Committee for consideration (amendment becomes part of the FY 80 Defense Authorization Bill).

1978

U.S. District Court in Washington, D.C., rules Title 10, USC 6015, is unconstitutional.

Congress approves the Navy-sponsored amendment to Title 10, USC 6015, and it eventually becomes law as part of the Defense Authorization Bill.

A challenging task...

MISSISSIPPI PRECOM duty

BY JO1 JERRY ATCHISON AND JOSN JOHN LARSCHEID

Some call it shore duty. Others say it's sea duty. It's still one tough job.

The more than 450 men assigned this duty saw only that they were being transferred to *Mississippi* (CGN 40) as part of the precommissioning (PRECOM) unit.

If any arrived in Newport News with the notion of being in just another Navy billet, they were in for more than a mild surprise.

What's it like to take a ship so new she has yet to earn the prefix USS and turn her into a bona fide Navy ship? Is it good or bad duty?

A chance to learn these and other answers came a few weeks before *Mississippi* was commissioned in Norfolk. The crew had moved aboard about two months earlier. They had already made two sea trials; some last minute fine tuning here and there was all that was needed.

The first of *Mississippi's* crew to arrive in Newport News found not much more than a steel hull sitting at pier side. Chief Yeoman Otis Fullmer and a few other admin/supply types were the first aboard. "You've got to have a paperwork organization before you can have a factual organization," he said.

Since *Mississippi* is also Chief Fullmer's second tour of PRECOM duty, he spoke from experience as he described what makes the work different.

"First, the people are unique. They've got to build their departments from scratch and that requires across-the-board knowledge of an individual's rate. Without that full range of technical knowledge, it's awfully hard to make something work in PRECOM."

Building from scratch means long hours for everyone. But the work is not without its rewards.

"You've got to adapt yourself to the organization as it is being built from a few people to an entire crew," Chief Fullmer said. "From the very start, about 50 percent of the crew is the nucleus crew. They work aboard ship, learning her systems and layout and setting up shop even as the ship is being built around them.

"The remainder, called 'balance crew,' are away from the ship attending technical schools and fleet training activities.

"The idea is to bring the two crews together aboard ship to teach each other what they've learned. Some departments get a late start on the building process, though, because the nature of their work requires that a larger-than-average number of people be away at school. They couldn't begin putting their departments together until the entire crew had moved aboard."

Patience is a real virtue for PRECOM crew members. Building something from nothing is going to mean a few false starts. That's all part of the learning process, though, and that's what makes it interesting for so many.

"Being part of the PRECOM unit has given me a chance to get to know people better than if I'd been assigned to a ship already in commission," said

Below: INSURV team members inspect equipment on Mississippi's *stern. Right: The sun rises on* Mississippi *crewmen preparing for a long day of work getting their ship ready to join the fleet.*

Ship's Serviceman Seaman Richard Smith. "Since everyone is new, we're all starting out even trying to live up to the ship."

That everyone is new to *Mississippi* comes as no surprise. What may surprise some, though, is the fact that over half the crew had never been to sea.

Gunner's Mate (Guns) Seaman Mike McNamara, himself a newcomer to sea duty and keeper of *Mississippi's* aft 5-inch/54-caliber mount, thinks that's all right. "I like it here and I like going to sea," he said.

Another sidelight of PRECOM duty is gaining an appreciation for the shipbuilder's work. Chief Fullmer described how one day a welder came into his empty office space. The welder pulled out a schematic diagram, took a few measurements and proceeded to weld a small piece of metal to the bulkhead.

Old Navy seagoing tasks, like preparing boats for launch (right), or getting ready for helicopter operations (below), become new tasks when done on Mississippi *the first time.*

Left: The Mississippi *mess decks. Below: Rigging the anchor chain.*

Everyone in the compartment immediately had their own ideas of what it was to be. The next day their interest was aroused further when another welder, carrying another diagram, came in and repeated the process.

Finally, with interest at its peak and friendly bets flowing, the workers came in and installed a watertight bulkhead in the compartment.

As the ship began to resemble more than "just a hull," equipment for the various ship's systems and department requirements began to arrive. Computers were installed, desks moved in and bolted down, tools, typewriters and thousands of other day-to-day pieces of equipment soon began transforming empty spaces into ship's divisions and departments.

The crew was particularly interested in the equipment being installed be-

Above: Commander, Naval Surface Force Atlantic's helicopter arrives onboard during sea trials. Left: A chief boatswain's mate signals to stop letting out the anchor. Right: USS Mississippi *(CGN 40) under way.*

cause much of it had been selected as a result of recommendations they had made. "We've had the opportunity, within guidelines, to pick out and purchase the equipment we believe will best benefit the ship," Chief Fulmer said.

Since *Mississippi* is the third ship of her class—she was preceded by USS *Virginia* (CGN 38) and USS *Texas* (CGN 39)—the crew turned to her sister ships for information. This made at least one of Chief Fullmer's jobs a bit easier.

"One of the hardest things for us to do during PRECOM is to put together the ship's organization and regulation manuals," he said. "We were able to use our sister ships' manuals as guides, though, and that was a big help. We also found out what their experiences had been—good and bad—so we could plan accordingly."

If placing a ship in commission is the goal of PRECOM, then passing the Inspection and Survey (INSURV) board is a major milestone on the way to realizing that goal. Before any Navy ship joins the operating forces, the INSURV people are first given the opportunity to find any reason why that ship is not ready.

On the eve of acceptance trials, the INSURV inspection team came aboard to affirm or refute the shipyard and the crew's belief the *Mississippi* was ready—finally and after months of preparation—to join the fleet.

Throughout the ship, the crew and shipyard workers all had the same thoughts: Had they overlooked anything? Was everything as it should be? Was there anything more that could be done to make the ship ready?

Time had run out for those who entertained any doubts. The INSURV inspectors, in white coveralls and carrying clipboards, came aboard the ship.

The Navy's experts in all phases of shipboard operations began an exhaustive inspection that saw them "crawling into, under, over and around anything and everything," according to one astonished third class petty officer.

As the INSURV team moved through the ship, each *Mississippi* crewman—from the junior seaman to the senior officer—knew he was personally responsible for getting his part of the ship established and operating smoothly. Everything from *Mississippi's* missile launchers to the deep-fat fryers on the mess decks were getting a microscopic going over.

This notion of personal involvement as opposed to "just doing the job" explains why many relish the long hours and hard work of PRECOM duty. It explains, too, why people like Chief Fullmer will continue to request this type of duty.

"When all the setting up is done, the PRECOM detail is over and the ship placed in commission, I'll be able to walk away from the ship and say 'I built that.' Everything that is good or bad about it is so because I made it that way."

And if the results of the INSURV are any indication, there are a whole bunch of *Mississippi* crew members proud of the way they've built their ship. ⚓

INTERESTED ?

Duty with a precommissioning detail may be what you've been looking for. If so, the Bureau of Naval Personnel is looking for you. Highly qualified and motivated sailors are always sought for this type of duty and volunteers are invited.

For those serving on sea duty when ordered to precommissioning duty, their time creditable for sea duty rotation continues uninterrupted. For those on shore duty going to sea, time spent with the precommissioning detail counts as neutral duty for rotational purposes and becomes sea duty once the ship is placed in commission.

If you would like to volunteer, fill out an Enlisted Duty Preference Card (NAVPERS 1306/63 (Rev. 7–77)). In the Sea Preferences block, list "new construction," and indicate the type ship for which you are volunteering in the remarks section.

Grains of Salt

Mahan - Sea Power Provides the Key

BY JO3 ALAN D. MEYER

The powers of the world quaked at the potency of 19th century technology. Rapid-firing artillery, steamships and steel navies fulfilled dreams of Manifest Destiny. According to this philosophy, God willed territorial expansion. Those who could, swallowed every piece of land they saw.

Confronted by a rapidly changing world, the United States Navy, just beginning to recover from the swift demobilization following the Civil War, stood by bewildered. Short of funds—fearful of spending money on weaponry that could soon become obsolete—the Navy fell into disuse. Apathy was everywhere.

Against this background, Commander Alfred Thayer Mahan drifted—as he said—"aimlessly" off the coast of Japan, "on the simple line of respectability." A ship's commander in a nearly defunct Navy, Mahan wiled away his idle hours reading military literature and writing historical essays. He could see nothing in his future except eventual retirement in the grade he held.

In 1884, he was offered an opportunity for which he long yearned. Commodore Stephen Luce, who early recognized Mahan's talent for self-expression, asked him to lecture on naval history and warfare at the newly founded Naval War College in Newport, R.I.

Mahan's lectures on the necessity of a Navy were to become the cornerstone of his fame. Though borrowing from existing historical theories to make his points, his presentations were noted for their unusual clarity and appeal.

Published in 1890, *The Influence of Sea Power upon History, 1660–1783*, was read worldwide. Admiral George Dewey based his arguments for increased naval spending on Mahan's work.

Mahan's salient point was that sailing-age tactics and strategies are of limited use in a technological age. What was needed were "principles which should direct great naval combinations, [which] have been applicable to all ages."

Again, Mahan immersed himself in 17th and 18th century naval history. His solution to the problem of sea power was a philosophy that eventually governed all naval warfare; it was a philosophy he exploited in an appeal for a modern Navy. He went so far as to state that a deity controlled the course of general and naval history. If history repeated itself, he said, it was a sign of God's favor or disfavor.

Constantly calling upon history to illustrate his principles, he pointed out that the English, in the days of Oliver Cromwell, conquered Jamaica. Numerous other "accidents" contributed to Great Britain's becoming a formidable sea power.

According to Mahan, the United States imitated England in 1898. The Spanish were accused by the United States of sinking the battleship USS *Maine* in Havana Harbor, Cuba. The war which resulted was a godsend to Mahan and his theory, as the United States conquered the Philippines.

Was this God's work, he queried? Would a strong Navy and the hand of God make the United States a sea power? None would disagree with him.

Could Great Britain supply the answer? Mahan looked for common denominators that would make both England and the United States coequals among the world's maritime powers.

With Great Britain, the United States shared the political aptitude and sense of order needed for naval warfare. These, he pointed out, were possessed by the English-speaking peoples. The United States, like Great Britain, was a great island nearly surrounded by water and, unlike Great Britain, was untroubled by powerful neighbors. The United States was also populated by a hardy, industrious people with the discipline necessary for life at sea.

But there were certain distinctions between Great Britain and the United States. Swept on the crest of the Industrial Revolution, 19th century United States was being torn from agricultural self-sufficiency. Entrepreneurs, dazzled by prospects of quick fortune, clamored for overseas markets to trade finished goods for rubber and other raw products needed for manufacturing. Of necessity, then, international relationships slowly developed.

Resistance to the change also grew. The lack of raw materials such as rubber left many Americans indifferent. To them, the fear of increased spending (gold outflow) and foreign entanglements resulting from overseas trade was a paralyzing thought.

On the other hand, trade was necessary for the very survival of Great Britain in the 18th and 19th centuries. Unable to supply their population with the necessities of life, the English were forced to look beyond their own borders. They observed that the Spanish penchant for conquest and plunder had left the Spanish with nothing once they had depleted their colonies and spent their wealth. Instead, the English established a profitable trade with their colonies throughout the world.

"The English colonist," said Mahan, "naturally and readily settles down in a new country, identifies his interest with it, and, though keeping an affectionate remembrance of the home from which he came, has no restlessness to return. In the second place, the Englishman at once and instinctively seeks to develop the resources of the new country in the broadest sense."

From a burgeoning commerce it was only a few steps to a powerful British navy. As colonies proliferated, British trade ships appeared throughout the world. The British navy took on the role of protecting English merchant ships and, at the same time, checking competition.

It was sea power, according to Mahan, which saved Great Britain from destruction when she clashed with France during the Napoleonic Wars. He pointed out that—with a population half that of France and a parliamentary government filled with political adversaries—Great Britain defeated a power which controlled all of Europe because its larger navy impeded French overseas trade while protecting its own.

Mahan interpreted the English experience in a way that he hoped would convince his American audience of the need for sea power. Overseas trade via a thriving merchant marine would be required for an industrial nation to exist. To assure the survival of the United States as an industrial nation, a strong Navy was needed to protect the influx of resources from overseas colonies. Without raw materials from abroad, manufacturing would grind to a halt.

Colonies were the essential building blocks of this plan. The weaknesses in Mahan's proposal were the means of acquiring and the justification for the acquisition of colonies that would fit his philosophy and overcome anti-expansionist disapproval.

Taking another man's land by force was deplorable to this former isolationist. Acquisition by chance was a different story. The capture of the Philippines, for instance, was part of a divine plan to fulfill "the instinct for commerce and bold enterprise" of the

CAPT Alfred Thayer Mahan—his writings and lectures on sea power shaped the course of the U.S. Navy at the turn of the century.

Grains of Salt

United States "in the pursuit of gain."

Mahan promised that his countrymen would reciprocate by spreading "culture, civilization and the inherent aptitude for self-government and independence abroad."

Anti-expansionists—those against Manifest Destiny—would protest that promoting overseas trade to create a strong Navy was contradictory. They argued that placing naval vessels throughout the world to protect our colonies would eventually draw fire from skittish bystanders and lead to war.

"On the contrary," Mahan fired back, "the best offense is a strong defense.

"If numerical superiority poses a threat," he stated, "it will keep adversaries at bay. Those bold enough to attack will find that we will be ready with troops, ships and an abundance of naval materiel."

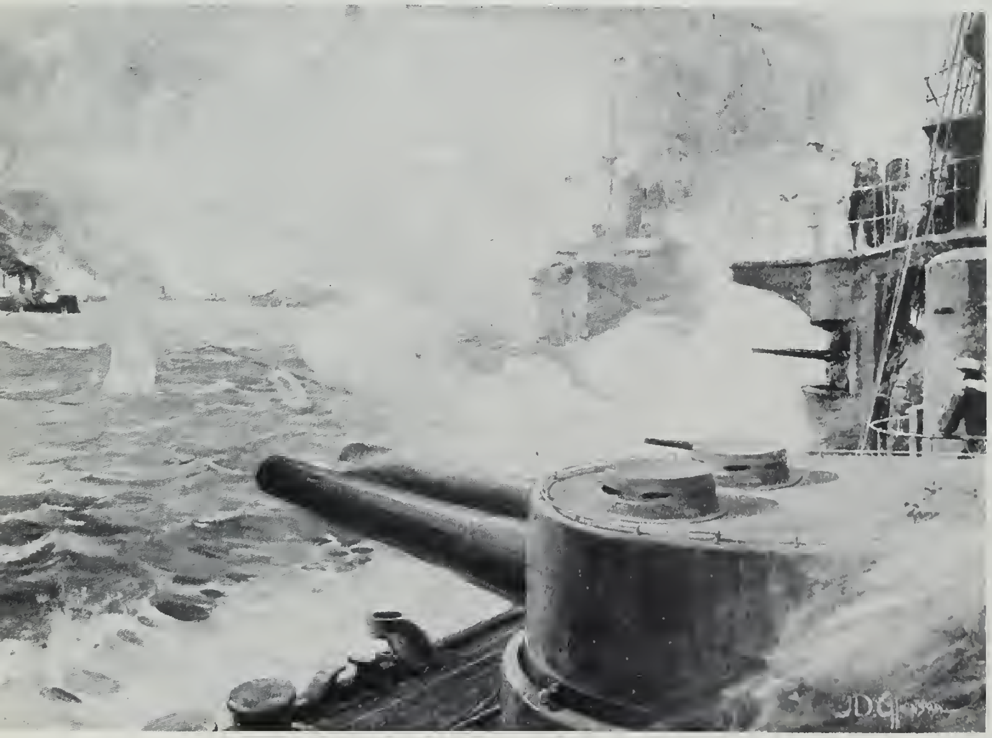
Mahan was ready with an idea if this didn't work. The United States Navy would "bleed the enemy economically" by blocking the movement of merchant ships to and from enemy colonies and commercial centers.

Seventy years after the publication of *The Influence of Sea Power upon History,* a blockade such as the one Mahan described dampened an already lit fuse.

In July 1962, an Air Force reconnaissance plane spotted Soviet merchant ships carrying missiles to Cuba. Fearing a missile base 200 miles from its borders would threaten the security of the United States as well as jeopardize the movement of ships through the Panama Canal, the United States Navy reacted. Within days, 180 ships bearing 85,000 men steamed toward Guantanamo Bay. For several weeks, a quarantine of Cuban ports by the United States Navy prevented the movement of Soviet merchant ships into Cuban waters. Soviet naval vessels, meanwhile, were prohibited from protecting the missile carriers. In the end, the Soviet Union removed its missile base, proving Mahan's belief in the need for a strong sea power and that "a strong offense is the best defense."

In a way—such as the 1962 confrontation outlined above—Mahan's theories regarding the use of sea power seem hardly changed since the days he first penned them. In another way, his basic idea that a powerful fleet would steam out from America's shores, meet an advancing enemy fleet bent on conquest of the U.S., and pound that fleet into oblivion belongs to another age. The introduction of the submarine, the airplane and the aircraft carrier have caused whole sections of his work to become outmoded.

One can hardly blame Captain Alfred Thayer Mahan. None of these instruments of war at sea existed when he first put his ideas on paper. Still, the core of his thinking remains sound. There remains today a great and urgent need for a powerful U.S. Navy to protect this nation's interests on the world's oceans. *The Influence of Sea Power upon History* continues to merit close attention; the maxims of Mahan deserve to be read by each new generation of U.S. Navy men and women. ⚓



The Spanish American War provided the classic example in proving Mahan's basic principle that ". . . the best offense is a strong defense." The doctrine of Manifest Destiny overcame all anti-expansionist opposition.

RETENTION CONFERENCE – Dealing With Tomorrow

BY JO1 DAN WHEELER

Senior petty officers and officers from more than 30 major naval commands met in Washington, D.C., in late August to discuss ways to improve retention and job satisfaction in the Navy. Chief of Naval Operations Admiral Thomas B. Hayward spoke briefly about "Career Retention Enhanced With Family Involvement"—the theme of the second annual Navy-wide Retention Conference—in his keynote remarks. Additionally, the CNO addressed several other areas impacting on retention which he considered important.

"We have to keep doing what we are doing, but we have to do it better," ADM Hayward told the conference. "Since the force we have to build is really a trained force of knowledgeable petty officers and junior officers, we are really talking about the issue of retention. . . .

"The Navy has to change in some fundamental ways that will influence large numbers of senior petty officers and junior officers to find greater satisfaction in the Navy as a career," the CNO said.

ADM Hayward said the Navy is doing many things correctly and he is pleased with the proficiency of Navy people overall and the attitudes he perceived during recent visits to the fleet. "But," he said, "we have to concentrate a great deal more on tomorrow than we do today, on those things that impact on people in the Navy. I think this is a tremendous challenge to us . . . and it really focuses on the business of leadership.

"I must conclude," ADM Hayward said, "that we do not lead very well—certainly not well enough—or we wouldn't be experiencing the large number of petty officers in the eight- to 12-year bracket leaving the Navy today. They are not satisfied with the Navy as a career."

The CNO said there are a lot of reasons this is so, some of which—such as deployments—no one can remedy; but there are many areas which the Navy can improve upon.

"It seems to me that we have to focus directly on the chain of command," ADM Hayward said. "We have to examine our leaders' qualifications and our leadership training to determine if we have our priorities in correct order. . . .

"Strengthening the chain of command is the key to this, but people must become our highest priority."

Following the CNO's remarks, various naval officers briefed conference attendees on pertinent topics of concern to all Navy people. After a day of briefing, the six work groups—Life Span Career Counseling, Career Counseling Review, Family Services and Support, Attrition, Quality of Life, Manpower/Personnel Review and Officer Retention—assembled to prepare their point papers and recommendations for the Chief of Naval Personnel and the CNO.

Three days later, more than 150 recommendations accompanied by mini-transcripts of the groups' discussion on each topic were forwarded for consideration by the top echelon of Navy policy makers. Some specific recommendations were:

- Implement LMET (Leadership and Management Education and Training) as soon as possible.
- Simplify advancement procedures.
- Make better use of command ombudsmen.
- Implement a quality re-enlistment bonus for top-notch petty officers not eligible for the selective re-enlistment bonus.
- Emphasize more effectively the chain of command and improve leadership within the chain.
- Provide uniform treatment at Recruit Training Commands for all recruits.
- Provide a system for reassignment of all new CPOs.
- Revise the inspection system so that each ship gets one combined inspection during each inspection cycle.
- Re-examine Navy-supported college education programs to make it possible for Navy people to earn a full degree during their first 20 years of service.
- Provide adequate cost-of-living allowances for high-cost areas in CONUS.
- Relocate the bachelor quarters' management teams to provide on-site availability of teams in areas with large bachelor populations.

All of the recommendations of the conference attendees and the arguments for each are currently being considered by top Navy officials. As changes are made, official policy statements will be forwarded to the fleet. ⚓

Eisenhower's Last Line of Defense

Marines at Sea

STORY AND PHOTOS BY JO1(SS) PETE SUNDBERG

According to a 1950 cruise book of a certain aircraft carrier, the Marines on the ship secretly believed that the man who really ran the ship was the captain's Marine orderly. They pointed to the fact that whenever something important happened, the CO summoned his orderly—obviously to seek his advice.

Navy men (including the ship's skipper) would probably disagree with this version of the orderly's duties and there might have been a few Marines who didn't believe that the orderly was the man behind the man. Although Marines and sailors have served at sea for hundreds of years, to some Navy men the duties of a ship's Marine Detachment (MARDET) are just about as vague as the skipper-orderly relationship.

A look at the Marine Detachment aboard the Navy's newest aircraft carrier USS *Dwight D. Eisenhower* (CVN 69) should clear up any gray areas.

For those who have never been aboard a carrier or a ship that has a MARDET, the sight of camouflage-clothed Marines mingling with dungaree-clad sailors is an eye-opener. One wonders what purpose combat uniforms have aboard a ship at sea; Marines explain that it's more comfortable than the old green utilities. Plus, they add, Marines aren't sailors so it's only logical they look like Marines.

There was a time in the early days of the Corps when no one was certain whether a Marine was supposed to be a fighting sailor or a seagoing soldier.

On Nov. 10, 1775, the Continental Congress passed a resolution written by a special Congressional committee to establish a Marine Corps consisting of two battalions. The committee did not intend to create a separate unit of Marines, but only to transfer sea-wise soldiers from the Continental Army to duty aboard ships. When General George Washington objected, Congress agreed that Marines should be recruited independently.

The wording of the resolution indicates the committee wasn't quite sure what Marines were supposed to be. True, the battalions were to be made up of ". . . such as are good seamen, or so acquainted with maritime affairs as to be able to serve to advantage by sea when required . . ."

As we know today, Marines are not specialized sailors; they're a totally different type of fighter. In fact, the Royal Marines, after whom the American Marines were modeled, were specifically exempted from sea duties. Since 1775, the role of U.S. Marines has evolved into various forms as the country's needs have changed.

Who, then, are these non-sailors who go to sea? Where do they come from and why are they there?

The 71 men of the *Eisenhower's* MARDET might be described as recruiting poster-type leathernecks. They are the Corps' representatives aboard ship and also the Corps' ambassadors during foreign port visits. As such, those selected for assignment to sea duty are thoroughly screened and trained at San Diego's Marine Corps Recruit Depot Sea School before they begin their two-year tour of duty aboard a Navy ship.

"The Corps selects those who rank among the top 20 percent of their boot camp companies," explains First Lieutenant S. P. Watson, MARDET executive officer.

"Only those coming from boot training are sent to Sea School. The NCOs assigned to us for their first sea tour, however, are not school trained," says Watson. "They're already conditioned to and familiar with the military structure."

Sea School is 30 days of classroom study, gun mount training and parade ground drill. Marine students study Navy traditions, sea terminology, firefighting techniques, shipboard drills, dimensions of various ships, features of a ship's internal security—all relating to shipboard life.

They also familiarize themselves with the various armament of ships. They learn loading, ammunition markings, rate of fire and the importance of their job within a gun crew.

Following Sea School, Marines are assigned to the major ships, such as carriers, cruisers and tenders.

Aboard *Eisenhower*, the MARDET, although assigned to the ship's weapons department, is a command within a command which operates from its own living and working spaces—accessible to non-Marines, but seldom visited by sailors. To most sailors, that area beneath the deck between the forward and after mess decks is merely a place from which Marines occasionally emerge. During a security alert, Marines come charging out of their scuttle armed with M–16s and .45-caliber pistols. At other times, they carefully work their way up the ladder, taking care not to scuff well-shined shoes or dirty the white gloves of their dress blue uniforms.

However, there is nothing secretive about their quarters. They serve as the detachment's headquarters, administrative office, sergeant of the guard's office (containing a red-lighted alarm panel) and, of course, as home for all but the 12 Marines assigned to the ship's brig.

Shipboard life dictates the need for full use of all available space, and the Marines' living quarters are no exception. Though compact, the area is considered more than adequate by Captain R. A. Houston, MARDET commanding officer.

"Compared to what you might expect, this is the latest in habitability and comfort," says Houston. "Of course, that isn't to say it's like living at a swanky hotel. But, compared to older ships, it's noteworthy."

Houston explained that during the ship's construction, a habitability inspector from the Fleet Marine Force headquarters came aboard *Ike* to ensure that the quarters were adequate. The space was designed with the MARDET in mind. Lockers were built to accommodate hanging uniforms, such as dress blues; and, although the ship's laundry is available, the detachment has its own press room so that uniforms can be kept smart all the time.

The primary duties of the MARDET are essentially the same as when the Corps first went to sea in 1776. During battle, they led boarding parties and supplied armed men to fire on the enemy from decks and fighting tops (platforms on the masts). Marines were then, as now, the spearhead and backbone of any amphibious landing. When not so engaged, their main function was to keep order and ensure discipline aboard ship.

For many years following the Revolutionary War, the duties of the seagoing MARDET remained much as they were in the Continental Navy. However, with the advent of modern warships, long-range fighting capabilities, and with the realization that modern U.S. Navy men are not the type to cause disciplinary problems, the Marines' duties took on their present-day form.

Today, when *Eisenhower* goes to battle stations, you won't find the Marines topside with fixed bayonets or grappling hooks in hand. Instead, contrary to the image made popular by John Wayne, the MARDET, with the exception of two, four-man stretcher-bearer teams assigned to sick bay, remains in its living quarters.

Actually, general quarters for *Ike's* MARDET can be boring. When condition ZEBRA is set, compartment hatches are shut and dogged, the smoking lamp is out and the ventilation system is secured, the Marines sit back waiting to be called. CAPT Houston, in an attempt to relieve the boredom and take their minds off the discomfort caused by the stale air, generally takes this time to conduct classes in such subjects as first aid or NBC warfare defense.

These Marines, sitting through a lecture during general quarters, may not live up to Hollywood's image of the battle-hardened leatherneck, but don't let that fool you.

Since *Eisenhower's* first line of defense is her aircraft and missile systems, the MARDET, in essence, becomes the last line of defense if the ship's defenses are penetrated and she comes under close attack. The Marines are just as prepared as their 1776 counterparts were to defend the ship against everything from enemy boarding parties to unauthorized aircraft attempting to land on *Ike's* flight deck.

Waiting for the order to fight, however, isn't the MARDET's only job during general quarters.

"Besides being held in reserve as a fighting unit, the detachment is also prepared to aid the ship in another important way," says admin chief Staff Sergeant John Kuczma.

"When a Marine checks aboard, his blood type is cataloged," explains SSGT Kuczma. "Then, if there's an actual battle involving mass casualties,

Below: As Ike's *last line of defense, in a simulated exercise, Marines turn out to defend the ship against enemy helicopters attempting to land on the carrier's flight deck.*

the detachment becomes a walking blood bank."

The MARDET is the ship's landing force. Although most of the Marines' landings in World War II and Korea were made by thousands of men carried to battle in transports and LSTs, it doesn't mean the small landing party is obsolete.

"If the lives and property of American citizens become endangered overseas," says Houston, "we would be the first on the scene."

Although these carrier-based Marines are constantly ready to react to any battle situation, they also carry out their normal shipboard routines. The most important is internal security, which the MARDET members take very seriously. They even check identification cards of other MARDET Marines before admitting them to certain restricted ship areas.

When you consider the size of the detachment—two officers and 69 enlisted men—and the duties which they have to carry out, you realize that the life of a seagoing Marine can be just as busy as the life of a Navy man. In addition to internal security responsibilities, the MARDET gets its share of compartment cleaning and handling of provisions. The detachment provides orderlies for flag officers, the executive officer of the ship (by choice, *Ike's* commanding officer doesn't have an assigned orderly) and any embarked senior Navy or Marine officer who is not a member of the ship's company.

Another of its important duties is to render honors as prescribed in Navy Regulations. On a recent father-son cruise, *Ike's* MARDET mustered on the hangar deck in full dress uniform to honor two retired Marine officers—one the father of a MARDET Marine, the other, the father of an *Ike* officer. For these assignments, spit and polish isn't just a slang expression—it's a way of life for the seagoing Marine.

The Marines are well known for their rigid adherence to military regulations, strict discipline, short hair, spit-shined boots—the whole nine yards as they say. It's a form of military life that you might think would cause a certain amount of discord between the less formal sailors of *Eisenhower's* crew and the MARDET. However, just the opposite is true.

"There's a lot of good-hearted rivalry," says CAPT Houston. "Marines are Marines and sailors are sailors, and they all act like they have for the past 203 years. The rivalry is there, it always has been and, hopefully, it always will be."

The rivalry is there, but *Ike's* crew can't help but be a little proud of its MARDET. ⚓

Left: From battle dress to spit and polish—CAPT Houston gives a lecture on first aid during general quarters. Below: Houston renders honors to two retired Marine officers during a recent guest cruise.

Battenberg Cup–
‘Comrades Across the Sea’

BY JO3 WILLIAM P. ALLEN

It takes more than just doing a job well to be the best ship in the Atlantic Fleet. USS *Holland* (AS 32) earned the title through extraordinary performance in overall battle efficiency and in areas such as engineering, safety, morale, career motivation and retention during 1977. As a symbol of *Holland's* operational excellence, officials revived a tradition that began over 70 years ago. To mark the occasion, the Battenberg Cup, also known as the British Challenge Cup, was taken out of "mothballs" and placed back on active status. As an additional honor, the First Earl Louis Mountbatten of Burma, whose father Prince Louis of Battenberg originated the trophy, presented the cup to the *Holland*.

Lord Mountbatten, the famous British naval leader during World War II, is noted for his involvement in the diplomatic negotiations which led to the independence of India and Pakistan in 1947. During his long career, he held many of the highest military defense leadership positions in the Royal Navy including Commander in Chief, Mediteranean Fleet in 1952–54; Admiral of the Fleet in 1956; Chief of the United Kingdom Defense Staff; and Chairman of the Chiefs of Staff committee in 1959–65.

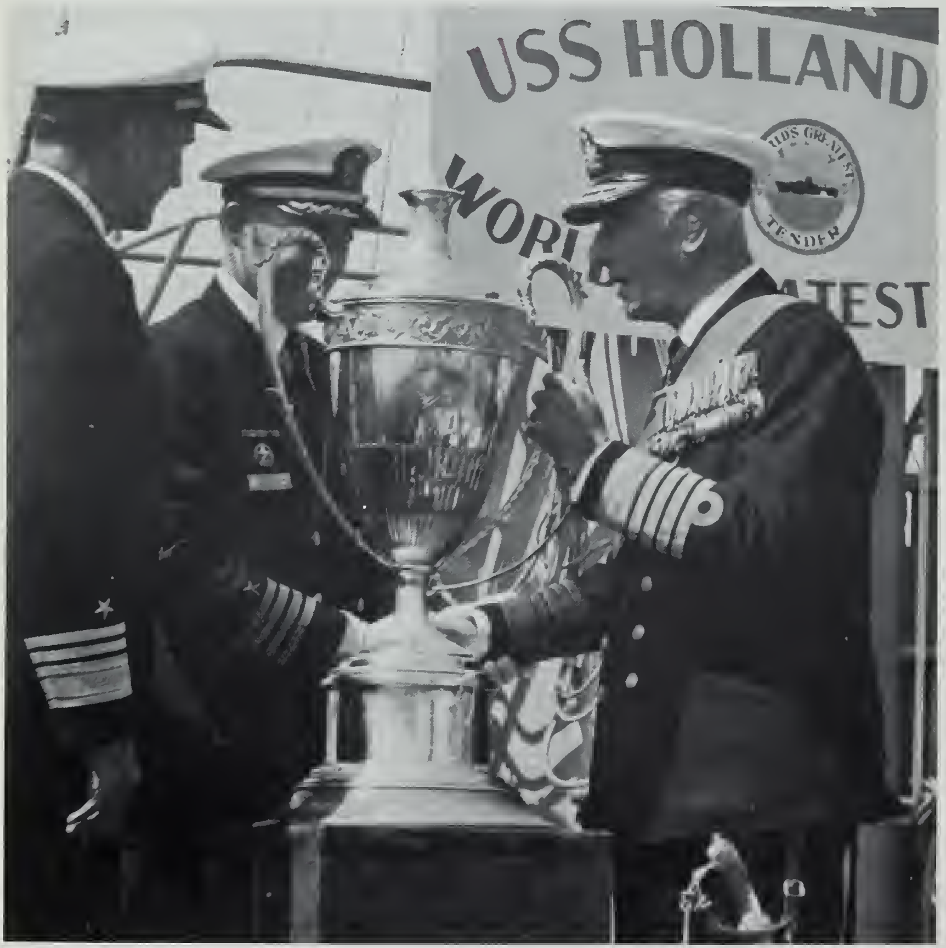
His father—and the Cup's namesake—Prince Louis of Battenberg, was a rear admiral in command of a five-ship British armored cruiser squadron in 1905 which made goodwill port visits to Annapolis, Washington, D. C., and New York City.

When the British squadron returned home following that cruise, Rear Admiral Robley (Fighting Bob) Evans, commander of the U.S. North Atlantic Fleet received the Cup from Prince Louis in appreciation for the courtesy his men had shown as hosts to the British sailors. Its inscription reads "To the enlisted men of the North Atlantic Fleet from their British cousins of the 2nd Cruiser Squadron in grateful remembrance of the many kindnesses, tokens of good fellowship and wonderful entertainments that were given to them in cordial friendship by their comrades across the sea." The large, silver-plated trophy measures 3 feet high and 11 inches in diameter at the top. It is mounted on an oak pedestal.

In an accompanying letter, Prince Louis of Battenberg requested that the trophy become a challenge cup among the enlisted of the North Atlantic Fleet. RADM Evans, accepting for his men, established the Battenberg Cup as the winning trophy for cutter races. For decades, rowing crews of both battleships and cruisers vied for the honor of capturing the Battenberg Cup by racing their one-ton, eight-oared cutters in vigorous competition.

Contests weren't limited to just U.S. Navy participants. RADM Evans included a provision by which British sailors could compete with American sailors using ". . . standard Navy racing cutters . . . whenever a ship holding the Cup would fall in with a British man-o'war. . . ."

A British crew did win the Cup once. During the Jamestown Exposi-



Left: Lord Louis Mountbatten presents the Battenberg Cup to CAPT. L. S. Wigley (center), commanding officer, USS Holland. *At left is VADM J. P. Moorer, CinC, U.S. Naval Forces Europe.*

tion at Norfolk, Va., in 1907, crew members from HMS *Argyll,* rowing a cutter reportedly borrowed from the battleship USS *Indiana,* defeated a crew from the battleship USS *Illinois.* The embarrassed Americans quickly recaptured the trophy; records indicate that there was another British challenge which proved unsuccessful.

The last ship to win the Cup was the battleship USS *West Virginia* in 1940. During the war years, competition was interrupted and never resumed. *West Virginia* held the trophy until the ship was decommissioned in 1947. For the next 30 years, the Cup was placed on display at several Navy commands. It finally came to rest at the Navy Memorial Museum in Washington, D. C.

This year, it was decided that the Battenberg Cup should be returned to the men of the Atlantic Fleet, and, once again, instill in its winners the pride of being the best. Now, the Cup will be awarded annually to the Atlantic Fleet ship whose crew has most distinguished itself through outstanding performance in "battle efficiency" competition and other categories of operations, administration and leadership.

In recent ceremonies, attended by Earl Mountbatten, USS *Holland* became the 53rd winner to have its name etched on the trophy, the first, however, for battle efficiency.

Based at Site One, Holy Loch, Scotland, *Holland* is a seagoing combination of workshops and warehouses, designed to care for the needs of Submarine Squadron 14. Her complement of nearly 1,400 men can repair anything from teletypes and nuclear reactors to torpedos and galley ranges.

Every department on board has something to brag about. Here are a few examples:

- A substantial supply department provides every consumable item a submarine on extended underwater patrol could need. Since *Holland* rides at anchor without the benefit of dockside storage space or warehouses, a monthly resupply effort becomes a major evolution. During a resupply evolution, an average of 150 small boat and service craft runs a day are necessary to bring aboard 1,200 to 1,600 tons of material. Frequently, weather hampers efforts. Yet in the annual supply inspection, *Holland* maintained an over 96 percent effectiveness rating.

Above: Winners of the Battenberg Cup in 1939 aboard the carrier USS Enterprise *(CV 6).*

- Weapons repair excelled in several operational tests—their torpedo performance was rated best in the submarine force.
- Usually when something goes wrong with a nuclear submarine's propulsion plant steam generator, it requires a trip back to a stateside shipyard. *Holland's* repair department, in addition to routine work, completed highly complex repairs and inspections on three steam generators. The magnitude of these month-long, round-the-clock efforts, plus the cost savings achieved and excellence of the work were remarkable displays of the ship's potential.

These are but a few examples of the accomplishments that were recognized in 1977 when *Holland* was awarded its first Battle Efficiency "E." But perhaps the biggest improvement noted was in the area of crew morale and motivation. Individual improvement was fostered at all levels. Advancements shot upwards. Seventy-eight percent of the men taking petty officer exams were authorized advancement.

Holland's crewmen also earned five bachelor's degrees and seven associate's degrees over the past year through the Navy Campus for Achievement program in conjunction with the University of Maryland.

Morale played an important part in *Holland*'s winning the Battenberg Cup. The Holy Loch area is described as a land of immense beauty and incredibly bad weather. Rain, sleet and snow plus the incessant wind add to the very long hours—particularly since *Holland* is under at-sea conditions 24 hours a day. Yet, officer and enlisted requests for PRD (primary rotation of duty) extensions rose to 50 and 40 percent, respectively. The retention rate more than doubled. In FY 76 it stood at 30.4, then rose to 67.6 in FY 77. The Atlantic Fleet Golden Anchor award was presented to *Holland* for her retention program.

Holland's crew members know they are doing more than just their job. Now they have proof that their efforts are recognized and appreciated. Second place will have to do more than just try harder to capture the Battenberg Cup away from *Holland* in the next competition.

Bearings

Top Birthday Gift

Sixty Navy men aboard the Pacific Fleet destroyer tender USS *Samuel Gompers* (AD 37) obligated themselves to more than two centuries of service in celebration of their ship's 11th birthday.

The sailors, from petty officer third class to senior chief petty officer, were discharged and immediately sworn in by the tender's skipper, Captain Robert J. O'Malia.

Master Chief Navy Counselor Frank M. Snedeker and his assistant, Gunner's Mate Second Class Kittrell Thorpe, originated the idea. "We've held mass re-enlistments before but certainly none this large," said Snedeker.

The plan started out modestly with a goal of re-enlisting 11 crewmen on the ship's 11th birthday.

"Actually, we had that in the first hour we announced it," recalled Snedeker. "So we started on the second 11, then the third. Then we shot for 37 to match the ship's hull number and finally it stopped at 42."

But that was just on July 1. With 42 re-enlistments, an all-time one-day re-enlistment record was established for *Gompers*.

On the last day of July, *Gompers* re-enlisted 18 more of her enlisted crew members for a July monthly total of 60, perhaps a new Navywide, one-month re-enlistment record for ships.

Rear Admiral R. B. McClinton, Commander Naval Surface Group, Western Pacific, turned out for the celebration of *Gompers'* birthday, which happened to coincide with his own. RADM McClinton called *Gompers'* retention program "an example for the rest of the Pacific Fleet to follow."

And follow it should. *Gompers* has issued a challenge to all other fleet units to just try and top her record.

Forty-two sailors are reenlisted on USS Samuel Gompers' *11th birthday while in port at Subic Bay, R. P. (Photo by PH1 Randy Emmons.)*

Piper o' the Sea

'Twixt the deafening roars of jet engines, the sweet music of the highlands rises from the fantail of the USS *Enterprise* (CVN 65). Not exactly what you'd expect when you're on a nuclear-powered aircraft carrier. But in this case, Aviation Electrician's Mate Airman Ray J. McLaughlin Jr., *Enterprise's* own piper, is aboard.

With his forest-green bagpipes cradled tenderly under his arm, he squeezes out old Scottish and Irish tunes.

"The pipes have a mysterious, antiquated air about them," says McLaughlin. "Some tunes date back before the Romans conquered Britain. They sound strange and Oriental, like the music you might hear in India and Central Asia, which suggests the movement of the ancient Celtic tribes."

McLaughlin claims Irish and Scottish ancestry and is somewhat of an unofficial authority on the lore of the bagpipes and on the protocol of the highlands.

"Playing the pipes," he says, "gives me a feeling of going back to the old Celtic clans before history was written, when each clan had its own traditional tunes."

Traditional tunes include songs for every occasion: weddings, funerals and battles. Then there is music for serenading and there are ballads.

McLaughlin learned to play the pipes during high school with the encouragement of a pipe major with a Scottish band. When that band broke up, another pipe major asked him to join the Clan Erin Pipers, one of the oldest and most prestigious bands in the Manhattan (N. Y.) area. McLaughlin didn't hesitate.

It takes a lot of wind to play the bagpipes, but McLaughlin claims it's invigorating. He says it takes about seven years and lots of practice to be good enough to play without tearing up your insides or passing out. It's hard work, he admits, but he can blow the pipes for two hours at a stretch with all pipes open.

McLaughlin's repertoire consists of about 35 songs. But he loves to play and claims he won't quit "until I learn all the songs of my ancestors."—*JOC Jesse Jose.*

Saves 5 From Drowning

Boiler Technician First Class William F. Owens Jr., a 16-year veteran stationed at the Naval Reserve Center in Boston, Mass., received the Gold Lifesaving Medal from Coast Guard Commandant Admiral John B. Hayes in August. He was awarded the nation's highest lifesaving medal for his actions June 6, 1977, in saving five lives and assisting in the rescue of nine others after a charter fishing boat capsized in a freak storm on Chesapeake Bay.

Silver Lifesaving Medals were presented to three civilians for their rescue efforts in the same incident where the 42-foot-long *Dixie Lee II* capsized near Thimble Shoals Light.

The citation accompanying Petty Officer Owens' award said he had "displayed complete disregard for his own safety. . . ." Witnesses also credited him with establishing order and organizing rescue efforts.

Petty Officer Owens was on leave in the Norfolk area when he and his wife signed on for a day of charter fishing aboard the *Dixie Lee II*. (Thirteen of the 27 people aboard the boat died later from the accident.)

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Clean-up Hitters

When one is commissioned from the enlisted ranks, it's an occasion worth noting. When four enlisted men from the same squadron attain officer status, it's really an achievement. That was the situation when four men from Attack Squadron Twenty-five were commissioned at Naval Air Station, Lemoore, Calif., under the 1977 Limited Duty/Warrant Officer program.

Holding the "big bats" symbolic of their squadron's nickname, Fist of the Fleet, are newly commissioned LDOs (l-r) Ensign L. Wilke, Ensign Mark Boudah and Ensign Jesse Wilson, and Chief Warrant Officer Vernon Werre. At left is Commander D. J. Wright, executive officer, and at right, VA-25's commanding officer, Commander Warner L. Butler.—*LTJG Bob Pritchard.*

At about 4:20 p.m., a sudden, severe storm with heavy rain and high winds struck the boat, causing it to capsize. All of the passengers were thrown into the water. Twenty were trapped under the boat.

"Petty Officer Owens immediately grabbed the woman nearest him and carried her to the surface of the water. He placed her hands in the freeing ports and returned to the confined space as the boat was being tossed about by the wind," the citation says.

As he swam underwater between the restricted area of the boat rail and the shelter deck, the boat settled across his back, causing him severe pain and loss of air.

". . . facing extreme danger, he continued his search and located a second lady, whom he carried to the surface," according to the citation.

Owens rescued a man and woman who were non-swimmers, then returned beneath the boat to search for additional survivors. Finding none, he returned to the surface and climbed on top of the boat to assist in pulling nine survivors out of the water. As the last survivor was boarding, the boat turned over and tossed everyone back into the sea.

"Petty Officer Owens assisted in returning the non-swimmers to the boat. . . . He gave his lifejacket to a non-swimmer and for about 30 minutes held two women's heads out of the water," the citation continues.

Owens also freed a nylon line which threatened to tangle in the rescue boat's propeller, and assisted in transferring survivors, including Mrs. Owens, to the rescue boat.

The citation also says he administered first aid, applying tourniquets to control severe bleeding for two victims.

The Silver Lifesaving Medal citations commended James Gallagher Jr. and Michael Shoup—both crew members on the *Dixie Lee II*—for distributing life jackets and giving special attention to non-swimmers. The third Silver Medal award cited Captain Paul Holland, owner of the rescue boat *Joyce Lee*, for "single handedly pulling 14 survivors aboard his boat while controlling it."

Only 592 Gold Lifesaving Medals have been presented; there have been 1,790 Silver Lifesaving Medal presentations. The awards were established in 1876 by the Secretary of the Treasury. Now they are presented by the Department of Transportation.—*JOCS James Johnston*

Still Going Strong

There's no rest for the weary and no mothballs on order for fleet ocean tugs USS *Salinan* (ATF 161) and USS *Nipmuc* (ATF 157), though each has served more than 30 years in the fleet. On September 1, both grand old ladies of the auxiliary force were decommissioned and transferred to the Venezuelan navy in ceremonies held at the Naval Station, Mayport, Fla.

The ships were offered to and accepted by the Venezuelan navy under normal foreign military sales procedures on an "as is, where is" basis. Rear Admiral T. R. Kinnebrew, Deputy Commander Naval Surface Force, U.S. Atlantic Fleet, delivered the tugs to Dr. Felix Rossi Guerrero, Venezuelan representative. *Salinan* and *Nipmuc* were immediately redesignated as ARV *Miguel Rodriguez* (R 23) and ARV *Antonio Picardi* (R 22), respectively.

Built in 1945 at Charleston, S.C., the primary mission of the tugs was ocean towing and salvage. During their careers, they towed nearly every type of Navy ship and craft, ranging from aircraft carriers and battleships to small barges. ⚓

USS Foster—an impressive ship-of-the-line

BY JOC JESSE JOSE

A female boot is plying the waters of the Western Pacific these days, teaching old Navy salts new tricks. She's a lady, a man-o'-war and mighty quick on her feet.

Sailors on the Seventh Fleet destroyer USS *Paul F. Foster* (DD 964) have found this new class of combatant takes a little less elbow grease and a lot more knowledge to maintain and fight. The San Diego-based *Foster* is currently on her first deployment to the Western Pacific. By all yardsticks, *Foster* has been a joy and a challenge to her crew.

"It's fascinating to be on board," said Chief Electrician's Mate John Johnson. The advanced technology in this ship helps me increase my professional knowledge. The technical manuals and *Foster*'s blueprints are my constant companions."

Foster is Hull Technician First Class Jim Middleton's sixth ship. "She's vastly different, more complex. The equipment is incredible," he said. "It's an on-going learning experience for me."

From the whine of her four gas turbine engines—capable of propelling *Foster* at better than 30 knots—to the

Left: Crewmen stand their bridge watches on the Seventh Fleet's newest ship, USS Paul F. Foster.

vinyl-tiled bulkheads that can be wiped down with a damp cloth, the ship is different. Since joining the fleet in March, *Foster*'s port visits have brought crowds of curious visitors who find an impressive ship-of-the-line with wide passageways, hatches and doors, many with enough clearance which can be enjoyed by a 6-foot-4 basketball player. While there aren't many of those people in the Navy, the extra margin makes moving equipment and stores far easier.

Visitors also discover highly automated and cool propulsion spaces, a welcome relief for those used to the hot spaces of earlier ships. Her gas turbines turn over with the turn of a key; "like starting your car," one crew member said. Actually, her turbine plant can go from "cold iron" to full power in about 15 minutes, several hours quicker than conventional steam plants.

In the air-conditioned engineering central control station, a sophisticated console allows one man to light off the four gas turbines and monitor their operation. Topside in *Foster*'s superstructure and on her main deck is the real stuff which makes up her fighting capability. Anti-sub weapons systems include Mark 32 torpedoes, anti-submarine rockets and an SH–3D helicopter. Each is linked to the latest sonar detection digital computers and fire control systems.

"There are additional armaments planned, such as the *Harpoon* and *Tomahawk* missiles and the new 8-inch gun, all of which can be accommodated easily without cramping the ship's livability," said *Foster*'s skipper, Commander Albert L. Kaiss.

With all this built-in fighting capability and advanced propulsion system, the sailors have found the ship livable and easier to maintain. "She's big and comfortable," said Seaman Apprentice Tom Santana, the operator of the walk-in ship's store.

Foster has a compact but complete workout room for physical fitness buffs, lounge areas in the berthing compartments, and color-coordinated interiors. It's hard to find haze gray and pea green paint in any of her living or office spaces. Instead, *Foster* sports flame-retardant and smoke-resistant fabrics and surface materials in easy-to-clean solids, plaids and stripes of gold, brownish orange, blue and green.

Her aluminum superstructure and topside decks have tough protective paints which resist rust, pitting and wear. Throughout, attention to easing day-to-day maintenance has given crew members like Boatswain's Mate Second Class Richard Koch a modest reprieve from chipping, scraping and painting.

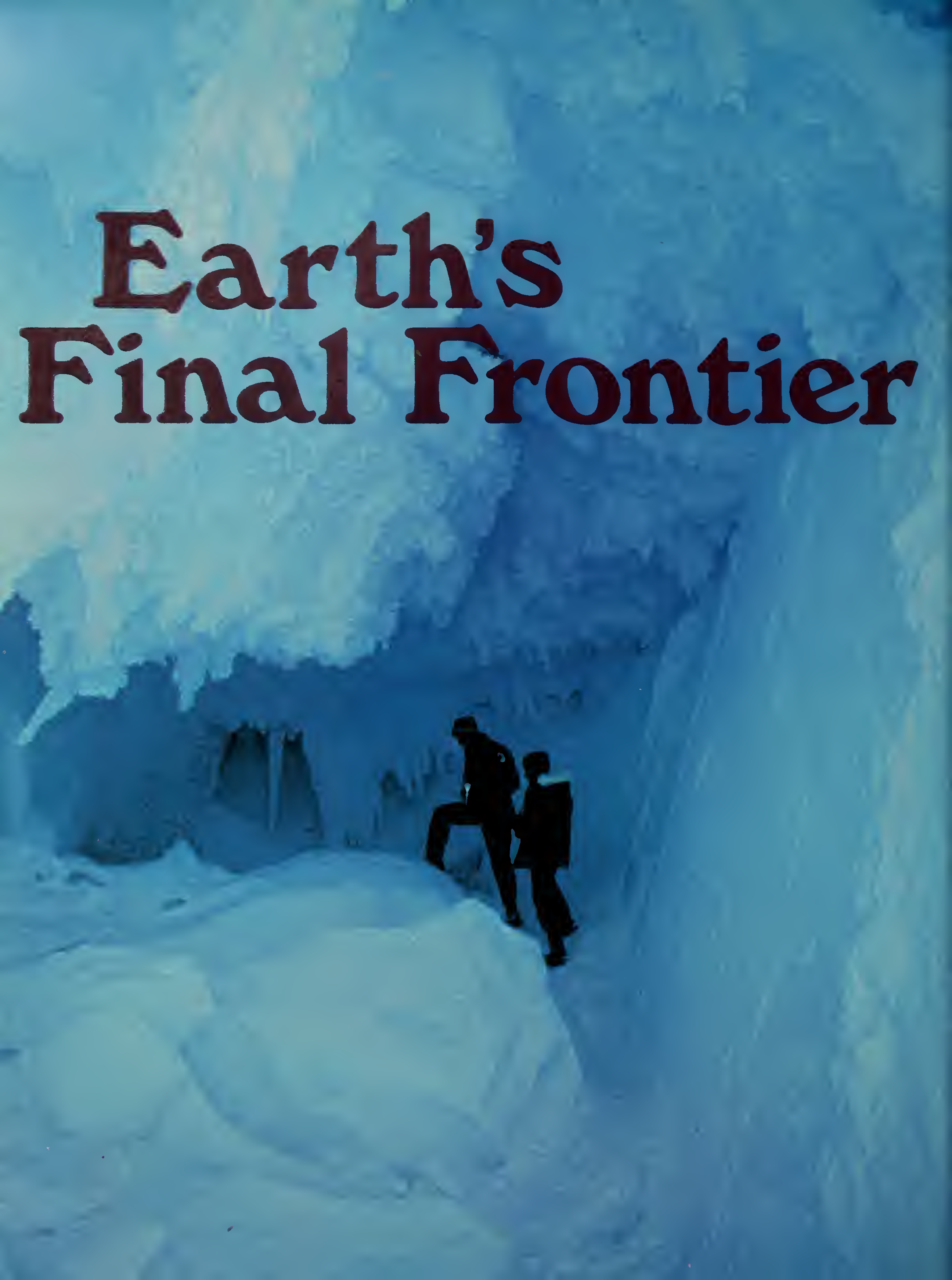
"That doesn't mean we've got it made," Koch said. "She's still a demanding ship and a working ship that requires more thinking on the job than elbow grease."

"It takes special sailors to make things click on *Foster*," said CDR Kaiss. "I've been fortunate. My crew is tops and evenly matched with *Foster*."

Sporting a multitude of talents and good looks to boot, this lady has tested the young sailors, challenged the old-timers and won them over in her first trial in the Pacific. ⚓

Left: A secondary but important duty of the Foster*'s anti-submarine warfare helo is bringing in the mail.*

Earth's Final Frontier



BY LT PHILLIP KAZANJIAN

Antarctica. The name alone conjures up visions of endless ice fields buffeted by winds of hurricane force. A forbidding land boasting the lowest temperature ever recorded on earth (nearly 130 degrees below zero), this desolate continent contains 95 percent of the world's permanent ice. It is shrouded in total darkness for six months of each year.

Every year since 1955, hundreds of scientists journey to Antarctica in search of information about our last geographical frontier. Sponsored by the National Science Foundation, they are part of the United States Antarctic Research Program (USARP).

But the scientists are not alone in the Antarctic—the U.S. Navy is there. Men and women of Navy Task Force 199, commonly known as "Operation Deep Freeze," provide the logistic support which makes it possible for the scientific research to continue. From transportation of personnel and equipment to the publication of a bi-weekly newspaper, operation of a 24-hour radio station, and 10 hours of television daily, the Navy provides a vital service in this joint endeavor.

Navy involvement in South Polar exploration dates from 1839 when Lieutenant Charles Wilkes commanded an expedition that helped establish the existence of the world's seventh continent. Ninety years passed before the famous Navy Antarctic explorer, Rear Admiral Richard E. Byrd, made his historic 1929 flight over the South Pole.

By the time of Admiral Byrd's death in 1957, Antarctic exploration was in full swing with the establishment of the International Geophysical Year (IGY) of 1957-58—later extended—whereby scientists from 12 nations became engaged in a peaceful, scientific assault on the White Continent. By the signing of the Antarctic Treaty in 1959, all 12 nations agreed to use the continent "for peaceful purposes only" during the 30-year treaty term.

Admiral Byrd's vision was ". . . that Antarctica, in its symbolic robe of white, will shine forth as a continent of peace with nations working together there in the cause of science setting an example of international cooperation."

Thus, when the President of the United States directed the Department of Defense to provide logistic support for USARP, it was only natural that the Navy, with its long tradition of Antarctic exploration, be called upon to direct such support.

Ski-equipped C-130 Hercules *transport of VXE-6 is a lifeline to the outer world.*

Originally known as Task Force 43, today's Task Force 199 is composed of the Naval Support Force Antarctica (NSFA) home based at Port Hueneme, Calif.; Antarctic Development Squadron Six (VXE-6) operating from Pt. Mugu, Calif.; NSFA Detachment Delta, the forward staging base located at Christchurch, New Zealand; and NSFA Detachment Alfa—including the wintering over party—headquartered at McMurdo Station, Antarctica.

In addition, Coast Guard icebreakers and Military Sealift Command supply ships join the force during the summer season, completing the logistic body. Additional support and cooperation are provided by the Royal New Zealand Army and Air Force.

Each September, at the start of the austral summer, the continent is bathed in sunlight which continues for five months. At this time, the Task Force deploys en masse to McMurdo on the Ross Ice Shelf, the main logistic center of operations.

In addition to McMurdo, the United States currently maintains three other year-round stations in the Antarctic: Siple, Palmer and South Pole.

McMurdo, the oldest and largest of the stations, has a summer population averaging 800. It is more than 10 times larger than the other stations on the continent, and contains the largest permanent building in the Antarctic—a gigantic (by Antarctic standards) two-story skyscraper.

Living and working in the land of the midnight sun is not without its own special problems. Surrounded by constant sunlight in summer and total darkness in winter, people are temporarily afflicted with "Big Eye"—bloodshot eyes from the prolonged lack of sleep. The 24-hour-a-day sunshine fools the senses as well. Even though tired, one is not sleepy.

The forbidding beauty of Antarctica has fascinated explorers and scientists since it was first penetrated by American whalers in the early 19th century. (Top left)—The tail of a C-130 is all that's visible. Abandoned the previous season, following an accident, the transport was eventually recovered.

Because there is so much to accomplish and because the summer season is relatively short, the pace of work in the Antarctic is hectic. Members of Naval Construction Battalion units work round-the-clock, assembling new structures and repairing existing ones. Seabees encounter numerous problems besides the fast work pace—tools become brittle in the intense cold and high winds can make welding almost impossible. Despite these difficulties, the Seabees have met the challenge of working in the Antarctic.

As can be imagined, snow accumulation, along with the problem of placing structures on top of ice, presents a tremendous obstacle to station maintenance. For example, after only 20 years, the original station at the South Pole collapsed from drifting snow coupled with heat generated from the buildings. A replacement station was completed in 1975.

The Navy, in recognition of the difficult and dangerous working environment people face in this hostile frontier, has, since 1946, awarded to personnel on Antarctic deployment the Antarctic Service Medal.

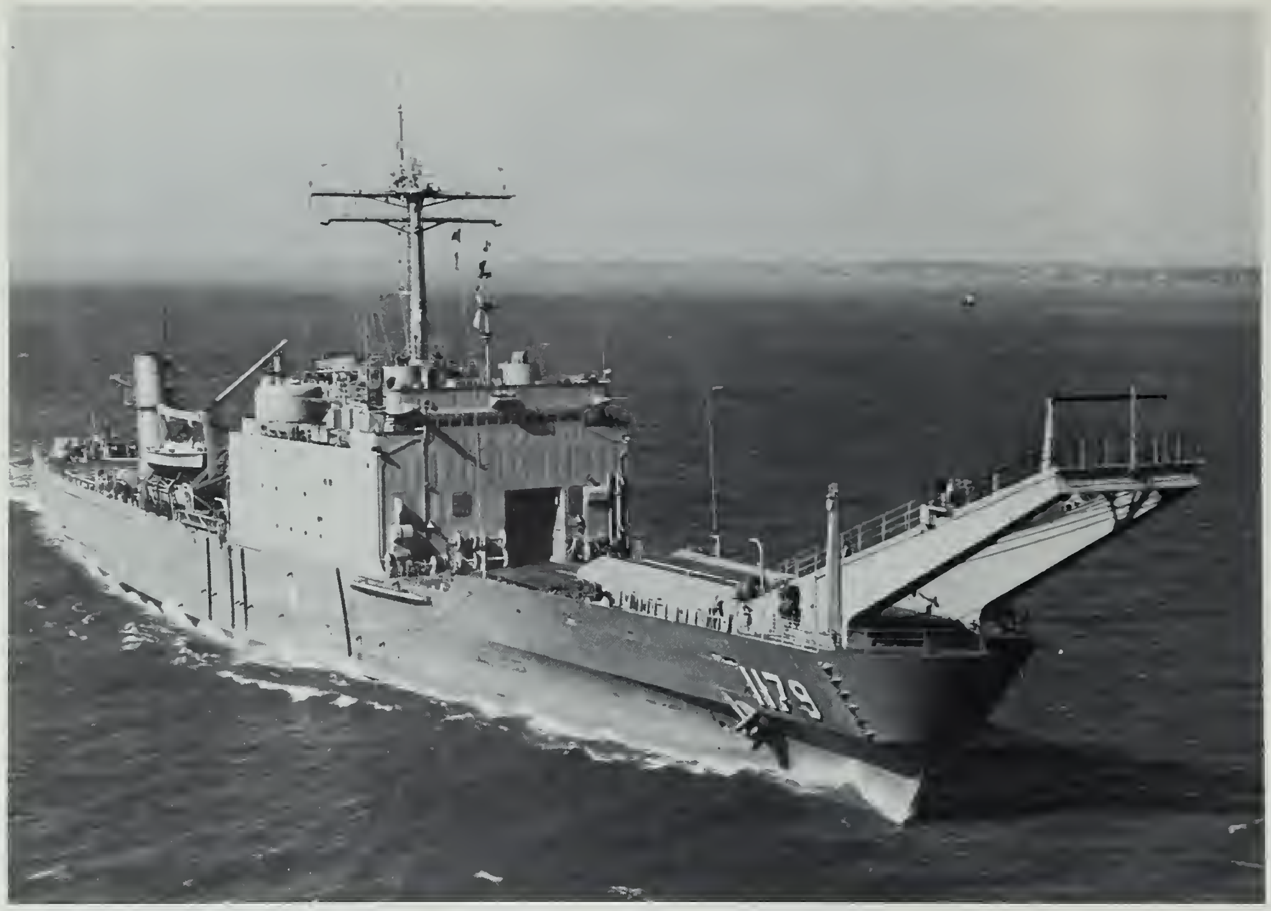
Long hours of work and the quick pace of the operations are not without reward. Scientists and support people share in the knowledge that they are pioneering in scientific exploration which may have significant future impact.

Last season, scientists exploring atop an Antarctic icecap uncovered a large number of meteorites which may help unravel the secrets of the origins of life upon earth. In the dry valley area of the Antarctic not far from McMurdo, minute organisms were found living inside rocks. This area had been regarded as being as devoid of life as any region on earth. The National Aeronautics and Space Administration, which funded, in part, last year's dry valley expedition, feels this discovery may prove significant and even aid future searches for life on other planets.

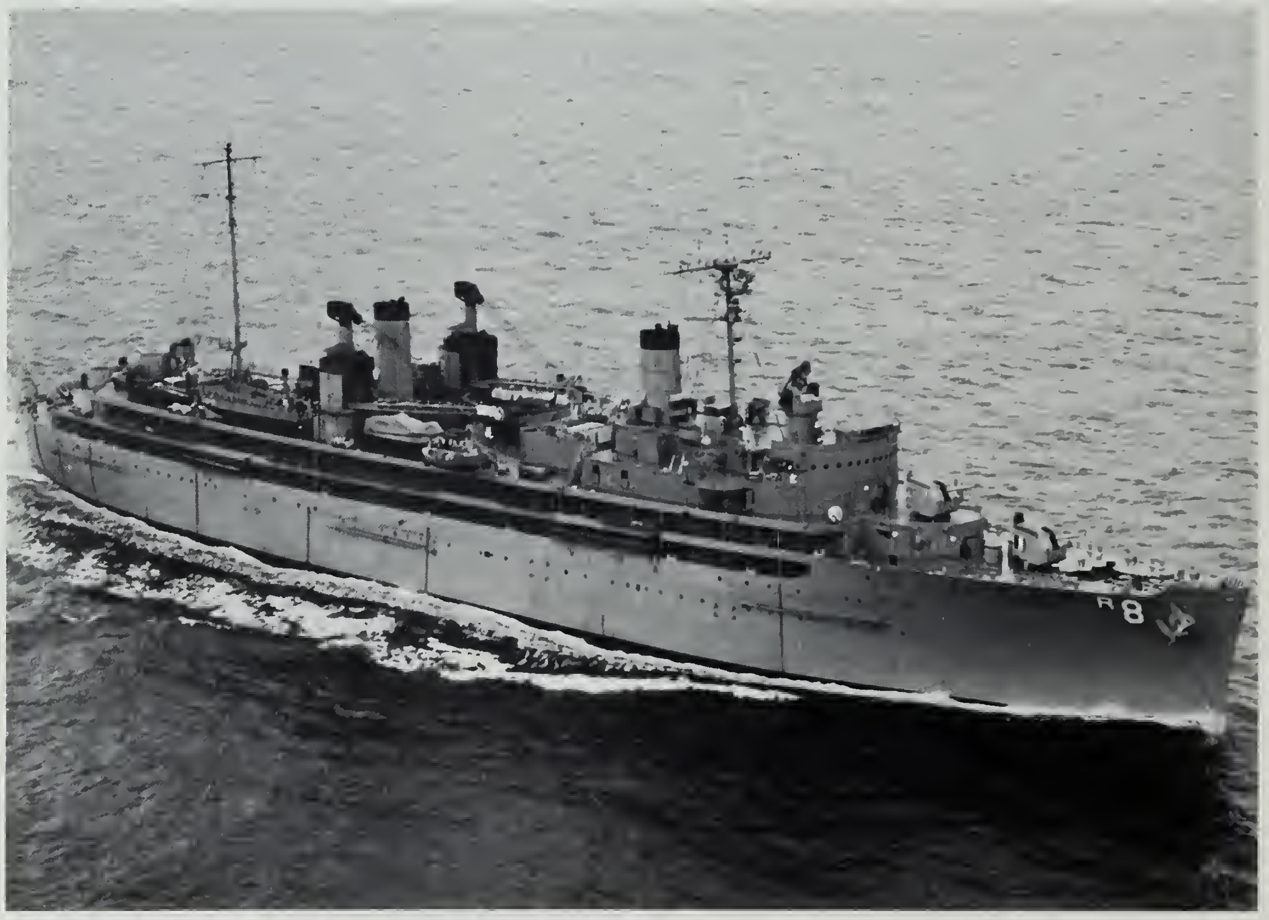
On a floating, quarter-mile-thick ice stratum the size of Texas, television cameras were lowered for the first time into a "lost sea." Living creatures were found in these frigid, sunless waters that have been covered by ice for 12,000 years.

The Antarctic has a reputation for giving up its secrets grudgingly. Exploration is always at great personal risk for those attempting to unlock the continent's mysteries, sometimes with fatal consequences. But thanks to the dedication and professionalism of the men and women assigned to Navy Task Force 199, "Operation Deep Freeze '78" was completed without loss of life or serious injury.

Thus, while the world at times marvels at the scientific achievements made in the Antarctic, scientists pay tribute to the Navy for its part in enabling science to conduct research at the bottom of the world. The scientific assault on the mysteries of the frozen frontier continues in relative safety. ⚓



USS Newport *(LST 1179)*.



USS Jason *(AR 8)*.

Education keeps PACE aboard *Newport* and *Jason*

BY JACK BEN-RUBIN

Is it possible to earn college credits without setting foot on a college campus? How can a sailor attend class when he's at sea?

In the U.S. Navy, where the emphasis is on realization of a person's full potential, earning college credits while at sea is not just a possibility—it's a reality. The reality is PACE—Program for Afloat College Education.

Books, semester hours and other requirements are much the same as for any college course. Costs, however, are almost insignificant, with the student paying only a small registration fee, plus the price of the textbook. When classes are conducted aboard ship, there's no transportation problem and there's the extra benefit of having a qualified instructor who can devote time exclusively to the students.

On USS *Newport* (LST 1179), for example, PACE recently attracted 21 sailors and Marines to its college credit American history and economics courses. American history covered the social and cultural developments as well as the political and economic history of the United States. Following its completion, PACE students then took up Principles of Economics, a course which examined the problems of unemployment, inflation and economic growth in the United States.

Old Dominion University of Virginia, one of the accredited colleges administering PACE contracts, provided an instructor who joined *Newport* for her "Gator Navy" operations in the Mediterranean.

Ensign Mark Mahoney, the ship's educational services officer, along with Personnelman Second Class Bruce A. Thompson, published registration and text information and exam schedules in the Plan of the Day. The program was heartily endorsed by Commander Robert H. Fred, *Newport's* skipper.

On *Newport*, the class schedule was twice a week for eight weeks with classes normally lasting somewhat over two hours. In addition, hour-long review classes were held each morning, and a comprehensive review was conducted Friday evenings. The crew's lounge was used as a classroom; an open deck became a lecture hall. Exams were held in the mess hall, the largest, quietest space available.

However, as on any other Navy ship, working hours did not follow a regular 8 a.m. to 5 p.m. routine. As a result, class and study time often had to be arranged around the sailors' work schedules.

All around the ship and at any time of the day the learning process went on in some form or other. Roaming the ship, the instructor found himself seeking out students, wherever they were, to repeat parts of lectures, clarify terms and ask questions:

- In the personnel office: "Thompson, if you were Chairman of the Council of Economic Advisors during a recession, what would be your recommendation about taxes?"
- With the Marines during a break in exercises on Sardinia's beaches: "Oliver, did the Reconstruction Act help the nation as a whole more than it hurt the South?"
- In sick bay: "Lawrence, what is inflation all about?"

Jeff Pinnow (center), an instructor from Central Texas College, explains how to charge a refrigeration system to a PACE class aboard USS Jason.

- Even while touring Messina, Italy: "Rumpf, describe the government's fiscal and monetary policies for stabilizing the economy."

The teaching and learning went on, and the combined efforts of the Navy, Old Dominion University, and the PACE instructor paid off. Over 90 percent of the students passed, with a good percentage making A or B honor grades. The talent was there; it took only a little effort to produce it.

PACE aboard *Jason*

BY NORRIS JONES

PACE is also a reality on USS *Jason* (AR 8), a Pacific fleet repair ship homeported in San Diego, where Personnelman First Class Art Gaumer, the ship's educational services officer, reports that off-duty courses are filled.

Seventeen *Jason* crew members are taking an electronics course and 13 are in an air-conditioning repair class provided by Central Texas College of Kileen, Texas, PACE contractor for vocational courses.

Through Chapman College of Orange, Calif., 12 men are enrolled in a business class while 11 others are in a reading-study skills program.

College credit earned by the sailors in these classes can be applied toward an associate's degree.

A prime example of the success of the Navy's educational program and one man's self motivation is Chief Warrant Officer Robert Seater, assistant engineering officer in USS *Jason* (AR 8).

In just under four years, Seater earned three college degrees. Beginning with the Associate Degree Completion Program (ADCOP), he attended Grossmont College, El Cajon, Calif., full time for two years. By June 1971 he had earned an associate of science degree in supervision and management.

Then, using his VA education benefits, he attended San Diego State University at night. He received his bachelor's in January 1973 and a master's in industrial technology in June 1973.

Seater, who joined the Navy after graduation from Metz High School, Metz, Mo., in 1960, said he plans to continue his education and hopes to eventually work on his doctorate in management.

"The opportunities are available in the Navy if you want to discipline yourself . . . and disciplining yourself is the key," he said.

Newport and *Jason* are only two examples of the Navy's continuing interest in providing educational opportunities for those who have a desire to learn. At inland stations, in port, and even at sea, the Navy constantly makes available the learning experiences which are stepping stones on the path to success. In today's world of specialization and the demand for more knowledge, the Navy is keeping PACE.

PACE, originally set up in 1960, makes it easy for today's seagoing Navy people to accumulate college credits. Under the program, a wide selection of undergraduate courses is available to any group of 10 enrollees who meet the participating university's requirements. This includes a high school diploma or the GED equivalent.

Selected universities conduct the courses on land when the ship is in port. During deployment, a contractor-approved instructor travels with the ship for the duration of the program, usually eight weeks.

Upon completion of an entire PACE curricula, the Navy member will have the equivalent of two years of college. Final grades are sent to the university's registrar and to the educational services office. Course completion certificates are sent to the person's activity for placement in service records. The credits earned can be applied toward a degree at the participating university or can be transferred. To date, 30 students have earned bachelor's degrees and 125 have earned associate degrees under PACE.

In 1977, 19,216 Navy people studied under PACE. Of those, about 80 percent completed their courses successfully. They have learned that PACE is an invaluable investment which gives a high return. As just one of the many educational opportunities provided Navy people, PACE widens educational horizons, gives backup training for rating specialties, and brightens prospects for later employment. ⚓

Homework is homework—even aboard the USS Jason *where PACE students take their math seriously. (Photos by Claudie Johnson.)*

Rights & Benefits

Education in the Navy Is Unlimited

BY JO1 DAN WHEELER

A 27-year-old sailor said, "I'm too old to go back to school, I'd be 32 before I could possibly get a degree."

That's true. But he will still be 32 in five years if he doesn't take advantage of one of the Navy's many educational programs.

Why not get started now? Here are a few of the programs open to Navy men and women who qualify. For more information on every program available, see your Career Counselor and your Education Assistance Officer.

- Navy Campus For Achievement—No matter where you are stationed, you are close to one of the more than 375 Servicemen's Opportunity Colleges. These schools accept credits earned elsewhere and work closely with service people who are interested in earning an associate's or bachelor's degree. In most cases, residency and on-campus study requirements are waived, enabling hard working students to continue their studies no matter where their job takes them.

Credit for non-traditional training is also granted, including credit for some extension courses, College Level Examination Program examinations, "A" and "C" school completion and military service experience. Courses for which you request credit must coincide with the major course of study being pursued for a degree or certificate.

- Tuition Assistance Program—Under this program, Navy people pursuing a degree are eligible for tuition assistance of up to 75 percent of the cost of tuition. (All other costs such as books, fees and supplies are borne by the student.) Study under the program is voluntary and during off-duty hours. Regular and reserve members on continuous active duty for 120 days or more are eligible.

- Program for Afloat College Education (PACE)—A component of the Navy Campus for Achievement program, PACE makes it possible for sailors on sea duty to earn credits while away from their homeport. Courses may be authorized if your ship has a minimum of 10 prospective students for each course and each student has completed the recommended prerequisites or their equivalents. Students pay only the registration fees stipulated in the contract between the Navy and the university offering the course.

- Instructor Hire Program—This program affords commanding officers an opportunity to provide higher education to members of their commands through command-organized classes. The objective of such instruction is to raise educational levels and, in turn, to increase job performance and effectiveness of each member of the command. Classes may be offered in technical, academic, professional and vocational subjects at all educational levels. Instructors may be either military or civilian, but must be qualified to teach the skill or subject offered.

- Defense Activity for Non-Traditional Education Support (DANTES)—When USAFI was disestablished by Congress, two USAFI-related functions critical to the success and efficiency of voluntary educational programs were assigned to DANTES. The two are: to provide credit by examination programs for military personnel; and to prepare and distribute a catalog of independent study programs and courses available to service members. The examination and other services of the DANTES Examination Program are available only to people currently on active duty. Reservists are eligible only when on active duty for 120 consecutive days or more.

- Navy High School Studies Program—This is a relatively new program which provides *on-duty* courses to both high school graduates and non-graduates for the purpose of increasing math and reading skills. Fully funded by the Navy, the Navy High School Studies Program was designed to increase the basic educational skills for anyone whose math or reading level is below 10th grade requirements.

- External Degree Program—This one is perfect for someone with a number of college credits or someone with enough basic knowledge to pass an examination in a chosen field. It generally allows a maximum transfer of college credits toward a degree and gives credit for work experience, life experiences and individual study. Residency requirements are waived, students can proceed at their own pace, and credits currently being earned at other institutions are allowed to fulfill degree requirements of the university offering the external degree.

- "A" School—About three-quarters of all sailors coming out of boot camp go directly to an "A" School where they learn the basic knowledge and skills of a rating.

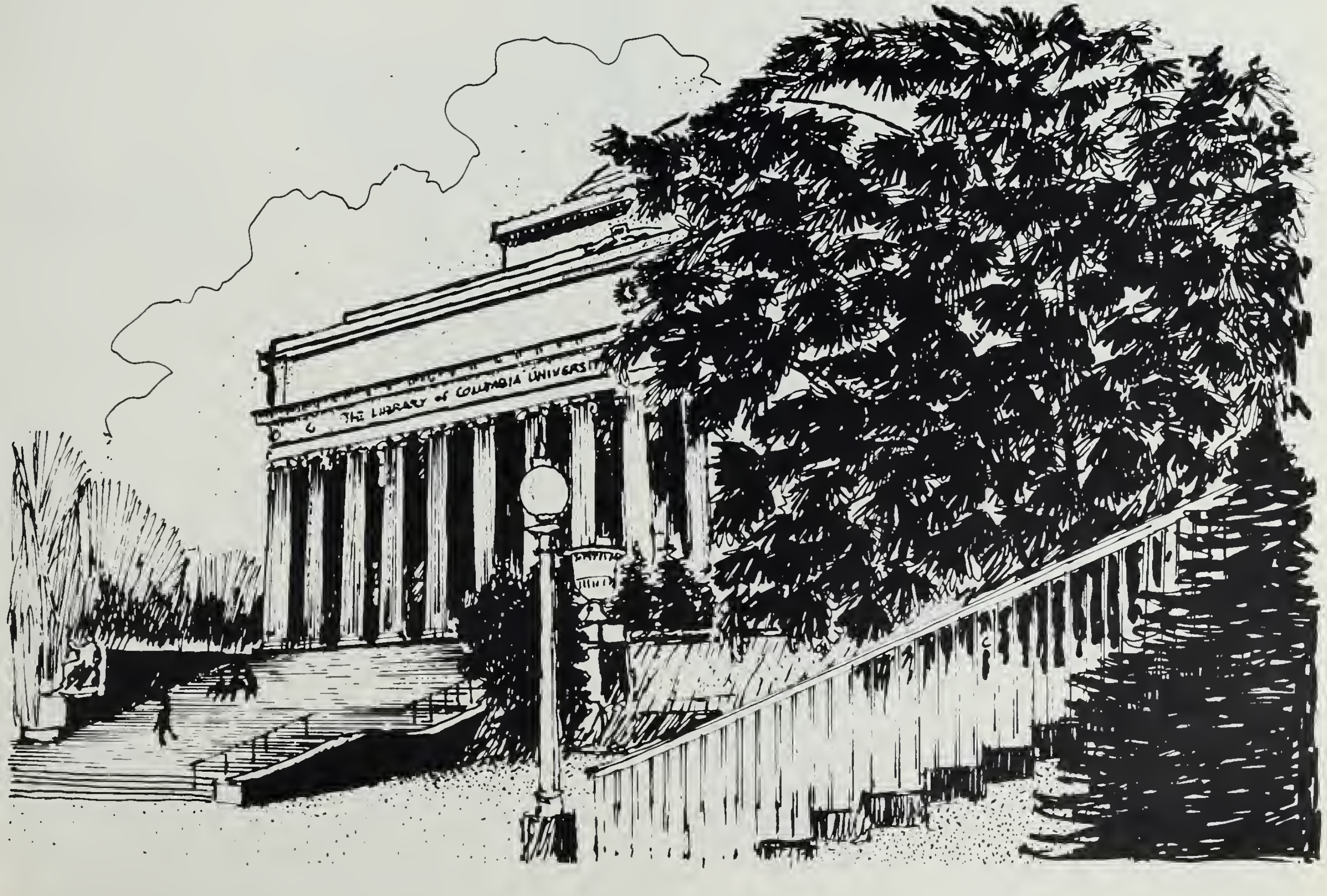
- "C" School—The Navy's most specialized schools, they provide advanced knowledge, skills and techniques needed to perform in a particular job or billet. Functional and fleet schools are two other types of schools Navy men and women may attend to increase their level of job competency and enhance their chances for promotion.

Functional schools provide training to officers and enlisted men and women, usually in a group or team situation, in a specialized task or function such as salvage, mine warfare, explosive ordnance disposal or nuclear weapons. Normally, these schools teach subjects and skills not considered part of the knowledge generally needed for a person to perform in his rating or job specialty. Functional schools also provide training in the weapons or advanced systems not yet in fleetwide use.

Fleet schools provide refresher and team training to fleet personnel who normally are members of ships' companies. Examples of these schools are amphibious, destroyer, submarine and mine warfare schools.

- The Navy also offers officer training programs for enlisted members who aspire to be commissioned officers. Some of these programs are: Limited Duty Officer Program, which is open to male personnel who are E–6, 7 or 8 and have completed between eight and 16 years of service; Warrant Officer Program, which is open to outstanding enlisted men and women in the Regular Navy or Naval Reserve; and the Broadened Opportunity for Officer Selection and Training Program (BOOST), which was designed for Navy people who show leadership potential but have inadequate academic backgrounds and which helps open the door for an appointment to the U.S. Naval Academy or an NROTC officer procurement program.

These are but a few of the many programs open to Navy men and women who want to increase their educational level while enhancing their chances for promotion or gaining a commission. Don't be a "steam'n' seaman" for four years. Take advantage of the opportunity to be somebody special. Talk it over with your career counselor—today. ⚓


THE LIBRARY OF COLUMBIA UNIVERSI

Nothing's Slow About Slow Pitch Softball

In case you hadn't noticed, August is usually a really big month for Navy softball. This year was no exception for Navy teams which received some good news and some bad news.

The good news is Navy women won the Interservice Women's Slow Pitch Softball Championship held at Sheppard Air Force Base, Texas, and placed seven players on the Interservice All-Star Team.

Now for the bad—the all-Navy men's team, competing at the Men's Interservice Slow Pitch Softball Championship at Fort Indiantown Gap, Annville, Pa., dropped commanding leads in almost every game they played and finished last.

The two Navy teams had won the right to compete in the interservice championships at simultaneous All-Navy Slow Pitch Softball Championships—the men on the West Coast and the women on the East—held earlier in the month. Naval Mobile Construction Battalion Center, Pt. Hueneme, Calif., hosted the Navy men's competition while the women battled it out at Naval Air Station, Pensacola, Fla.

The Interservice Championships pit the best softball teams from the Navy, Army, Marine Corps and Air Force against each other in both men's and women's tournaments.

At Sheppard AFB, Navy women wrapped up their interservice title in the next-to-last game, beating the Air Force 8-3. Earlier, Air Force defeated Army 7-5, giving them a shot at the tournament leaders, Navy. All the Navy had to do was beat Air Force and it would be all over.

After the first inning, it looked as if the Air Force would postpone Navy's championship as they took a 3-0 lead. Navy scored only once in the third inning, cutting Air Force's lead, 3-1.

Then the powerful Navy women exploded in the fourth inning with a

four-run rally—including a two-run homer by Maggie Hernandez—to jump in front.

Once the Navy women took the lead, it was all over as the Air Force lost their offensive punch and the Navy found theirs. Navy scored three more times in the fifth with Hernandez once again providing the key, a run-scoring double.

The Navy team then took on the traditionally powerful Marine Corps women's team and made it look easy as they pounded the Marines with 15 hits for a 14-1 win.

What worked so well for Navy women should have worked for Navy men—but didn't. The song sung at Fort Indiantown Gap was always the same: Navy men jumped into commanding leads in almost each game only to watch that lead shrink, then disappear altogether.

Their final game against the tournament-winning Air Force team was no exception. In what tournament observers described as the toughest game of the championship, Navy men knocked Air Force pitches all over the park. But when the dust had settled, Air Force took a 15-13 win—and the championship.

Slow pitch softball as played by both Navy men and women is anything but slow. It requires the pitcher to throw a ball at moderate speed to the batter. But everything else about this year's All-Navy and Interservice Slow Pitch Softball Championships was full speed ahead. It just seems that Navy men had a little trouble staying on course while the women consistently stayed on track to the end. ⚓

(Contributing to this story were JO2 Fred Valdez and JO2 Rich Yanku. Photos by PH2 Dave Fraker, PHAN Harry Weddington, JO2 Yanku and Sheppard AFB.)

Minutemen 'Mount-Out' – in a

BY JO3 P. M. CALLAGHAN

NMCB 62's cargo gets an Air Force assist into a C-141 Starlifter *aircraft.*

"They told us to go, and so we went."

And when you're a Seabee, that means "mount-out."

The Minutemen of Naval Mobile Construction Battalion (NMCB) 62 must be ready to move out at a given moment. As the Pacific Fleet's alert battalion based on Guam, their recent exercise was a reminder that the success of a mount-out depends on the time it takes to pack seabags, equipment and weapons; to get airlifted from one place to another; and to do the job once they arrive.

At 10:20 a.m. on a restful Sunday, the mount-out began. Off-base liberty suddenly was cancelled, security guards were posted, and the word was passed. Extra communication lines were installed in anticipation of heavy radio traffic, and NMCB 62 was in a state of emergency.

In less than 48 hours, an air detachment of 89 men with full combat gear was speeding toward Andersen Air Force Base in a police-escorted convoy. Thirty-three pieces of equipment stood on the landing apron: front end loaders, 2$^1/_2$-ton trucks, jeeps, lowboys and concrete mixers. In short, it was the "guts" of any Seabee unit, ready for loading aboard 11 C-141 *Starlifters* of the Military Airlift Command.

But the 11 would be needed only in reality; two *Starlifters* were enough to meet the needs of this particular exercise.

The condition of Seabee equipment was evaluated by Air Force members of the Airlift Control Element (ALCE) at Andersen. Two loadmasters from ALCE also assisted Seabees in the tricky business of easing the bulky equipment into the C-141s' cargo holds.

At the air base, the detachment was inspected by Marine Major P. J. McCann, military readiness officer for the Commander, Construction Battalions,

Hurry

Pacific Fleet. He made sure the Seabees' weapons and tactical communications equipment were in working order.

Next day, the actual airlift took place. Several pieces of equipment—ranging from portable water pumps to a 39,000-pound lowboy—were loaded into the C-141s and part of the air detachment took off for a short, 20-minute flight. It was, after all, only an exercise. The plane then returned to Andersen.

Less than 96 hours after 62's air detachment stood by for departure, the rest of the Minutemen stood by on a pier at the Naval Station waiting to embark aboard an LST. Every item imaginable belonging to the battalion also was on hand: tools, manuals, typewriters, logbooks, paper clips and bulletin boards.

This, the main body, underwent an inspection too. Dog tags were checked against identification cards for discrepancies between social security numbers. In a couple of instances, MAJ McCann asked a Seabee if he knew how to use the gas mask each had with him.

"How long does it take you to put it on?" he asked.

"Nine seconds, sir."

The major glanced at his watch. "Do it," he ordered.

Within nine seconds, each man had on his gas mask.

For the 600 men on the pier, the readiness exercise ended at the point of actually boarding a landing ship. For them, like the other Seabees at the air field, it was only an exercise but a very realistic one designed to test their response in an emergency situation. Were the mount-out the real thing, the Seabees of NMCB 62 knew they would be ready when called—by air or by sea. ⚓

Mail Buoy

Old Airplanes

Sir: Regarding PO2 Hess' question about the FR-1 *Fireball* in Mail Buoy in the September 1978 issue—the FR-1 *Fireball,* built by Ryan Aeronautical Co. in San Diego, was the Navy's first jet-powered aircraft. In addition to the reciprocating engine in the nose which turned the prop (shown feathered in the picture), a small jet engine was installed in the fuselage aft of the cockpit.

The jet was used primarily to increase the aircraft's total performance and was not normally used as the sole source of power. However, as is evidenced in the photo, it could sustain flight on the jet only, and, in the days of piston power, it was quite a sight to see it flying along with no apparent means of propulsion.

Still on the subject of old airplanes, the aircraft shown in the article, "The Imitator," same issue, is indeed a B–26, except that it is not the Martin B–26 *Marauder* of World War II fame (some say infamy). Some time after the war, when the Martin *Marauder* was no longer in service, this aircraft came out and was also designated the B-26. The Navy used these as gunnery target tow aircraft under the designation of JD (Jig Dog). It was built by Douglas.—CAPT Harry L. Bixby, USN.

Type III Duty

SIR: I am due for orders to shore duty and am currently serving on Type II sea duty. I read an article that stated BUPERS was encouraging sailors who were completing sea duty tours to request assignment to Type III duty. However, after calling my detailer, I found out that this information was either not valid any more or hasn't been promulgated. Any information on this subject would be appreciated.—SK2 M. K. Davis.

- *BUPERS was not able to locate any published policy statement to support your claim with regard to Type III duty. This idea may be a holdover from the old Fleet Readiness Improvement Program (FRIP) days when the Navy was trying to get sea manning up to 100 percent. As it stands now, BUPERS defines Type III duty as overseas shore duty counting as sea duty. There is no policy precluding assignment of personnel completing a sea tour to Type III duty. The needs of the service at any given time dictate. Currently, the critical need for SK and many other ratings is ashore. Consequently, personnel completing a sea tour in these ratings will probably be assigned ashore.*

Any request for Type III duty for the ratings that are critically manned ashore will be considered accordingly.—Ed.

Sand Pebbles

Sir: Correct me if I am wrong, but I don't believe the members of the Yangtze River Patrol ("River Rats Remember," All Hands, July 1978) were ever referred to as "sand pebbles."—Mary R. Voeltz.

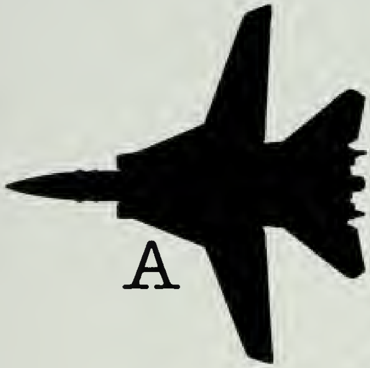
- *When the Yangtze River Patrol was active—1854-1941—its members were not referred to as the "sand pebbles." It was not until 1962, when Richard McKenna wrote* The Sand Pebbles, *a novel which turned into a bestseller and, later, a popular motion picture, that the term came into use. In Mr. McKenna's novel, the "sand pebble" was the name the Chinese gave to his fictional gunboat,* San Pablo. *To many, this fictional nickname became synonymous with the Yangtze River Patrol. Since it is a recently coined word, the writer of this article placed quotation marks about it.—Ed.*

This month's playmate must be "outa' sight!"

Reunions

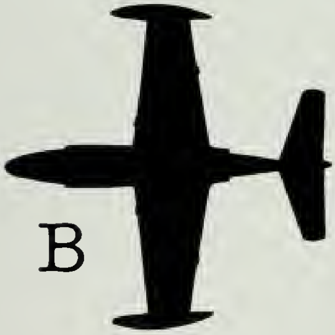
- Naval Air Transport Service—Third reunion, Aug. 16-23, 1979, in Honolulu, Hawaii, for all squadrons—active, reserve. Contact CAPT Alvin R. May Jr., USNR (Ret.), 1015 West South Avenue, Independence, Mo. 64050.
- U.S. *Naval Group China* (SACO)—Annual convention in Taiwan, Oct 28-Nov. 11, 1979. Limited number of bona fide veterans will be accepted. Contact W. P. Simmons, Box 2608, San Rafael, Calif. 94902.
- USS *Little* (DD 803)—Reunion proposed for shipmates and survivors of *Little,* which was sunk off Okinawa on May 3, 1945. Reunion planned for May 3, 1979, in Buena Park, Calif. Contact Doyle E. Kennedy, 2227 Wagner, Anaheim, Calif. 92806.
- NROTC "Reunion 79"—The NROTC Unit at the University of Louisville has been scheduled for disestablishment effective June 30, 1979. As a parting tribute to the many hundreds of NROTC midshipmen, NESEPs and instructors/staff who have graduated from or served with the University of Louisville NROTC Unit, a reunion is being planned for May 12, 1979. All NROTC/NESEP graduates and former staff are asked to write "Reunion 79," NROTC Unit, University of Louisville, Louisville, Ky. 40208.
- USS *Somers* (DD 381)—Reunion to be held in Indianapolis, Ind., July 28-30, 1979, for all personnel who served aboard the USS *Somers* (DD 381). Contact Fred McKinney, 5425 W. Ruskin Place, Indianapolis, Ind. 46224.
- USS *Wadleigh* (DD 689)—Reunion in 1979 for those who served in *Wadleigh* during World War II. Contact Elwood East, 107 Cheapside, R–705, Lexington, Ky. 40507.
- USS *Philippine Sea* (CVA 47)—Planning reunions for 1979 on the East Coast and for 1980 or 1981 on the West Coast. Contact A. G. LeBaron, Box 668, Moulton, Ala. 35650.
- USS *Hollis* (DE 794/APD 86)—Reunion planned in Chicago or Milwaukee for August or September 1979. Contact Ed Wamser, 205 W. Highland Ave., Milwaukee, Wis. 53203.

Stern Shots


A

From its inception, the Navy has been a leader in its ready acceptance of technical advancements and innovations. In no field has this characteristic been more striking than in naval aviation, as these silhouettes of current Navy aircraft reveal. Match the aircraft designations with their silhouettes:

1. E-2C Hawkeye
2. A-6E Intruder
3. US-3A Viking
4. H-46 Sea Knight
5. T-2C Buckeye
6. T-39 Sabreliner
7. F-14A Tomcat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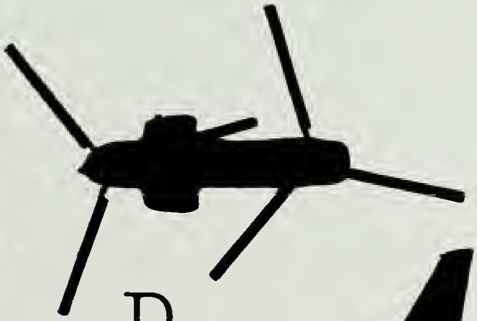
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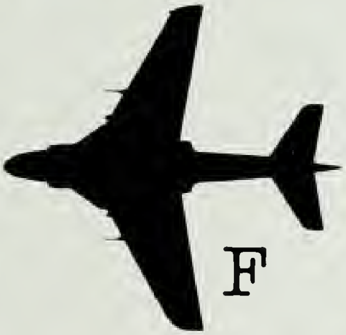
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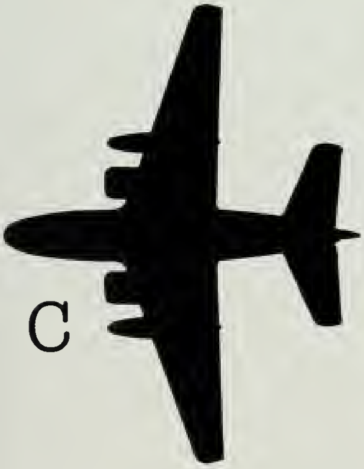
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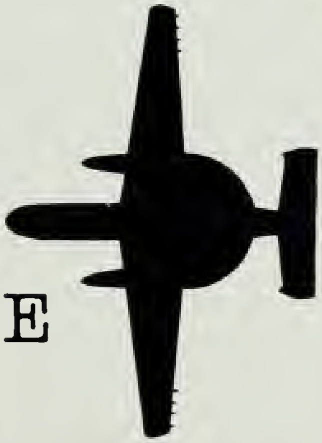
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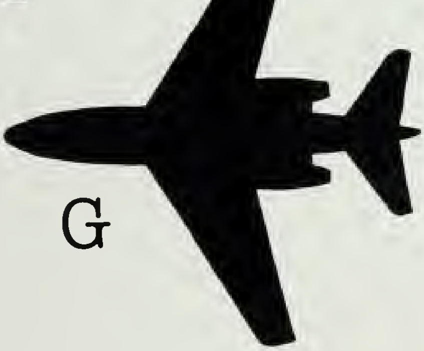
G

Answers: A — 7; B — 5; C — 3; D — 4; E — 1; F — 2; G — 6

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A crewman aboard USS Kitty Hawk *(CV 63), garbed in flight deck gear, awaits the next aircraft launch. (Photo by JO1 Kerby Harrison)*

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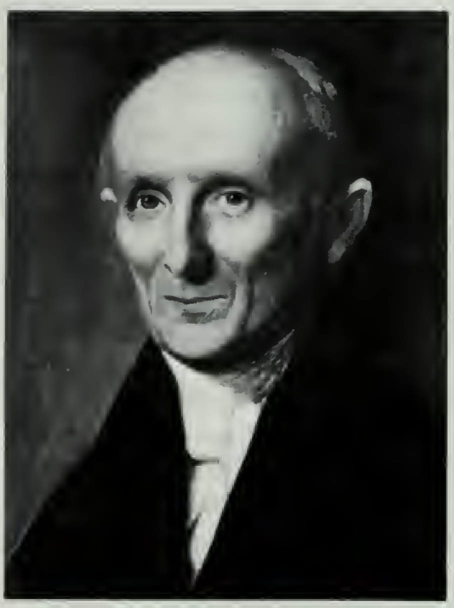

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ALL HANDS

MAGAZINE OF THE U.S. NAVY — 56th YEAR OF PUBLICATION
DECEMBER 1978 NUMBER 743

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Back: All-Navy Sailing at Newport, R.I., this past summer. Both front and back covers by JO1 (SS) Pete Sundberg.

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Currents

Heroism and Endurance: Downed P-3 Crew Returns to U.S.

Heroism and Endurance: Downed P-3 Crew Returns to U.S. ● After an experience filled with heroism and endurance as well as sadness, the 10 surviving crew members of a P-3 *Orion* which ditched in the frigid waters of the North Pacific Ocean returned home to their families at Moffett Field, Calif., on Nov. 4. As a result of crucial propeller failure and multiple fires in the engines, the plane, flying out of Adak, Alaska, was forced to make a landing on the water on Oct. 26. Lieutenant Edward Caylor, the senior surviving crew member, had high praise for the pilot, Lieutenant Commander Jerry Grigsby. "He was a brilliant pilot. Without his expertise . . . there would be none of us here to talk to you today." LCDR Grigsby was one of two crewmen who were not recovered after the ditching. Three others died during 12 hours at sea on life rafts before the survivors were rescued by a Russian trawler. The position of the downed aircraft was known by rescuers, as the men on the life rafts exchanged signals with Navy, Coast Guard and Air Force planes flying overhead. The Russian ship, which was closest to the scene of the ditching, took the men to a Soviet port for medical attention. The crewmen returned to the U.S. by way of Japan.

Nominations Open For Master Chief Petty Officer of the Navy

Nominations Open For Master Chief Petty Officer of the Navy ● The man in the Navy's top enlisted job – Master Chief Petty Officer of the Navy Robert J. Walker – is retiring next year and the Navy is looking for a new master chief. When he retires on Oct. 1, Master Chief Walker will be leaving the job he has held since Sept. 26, 1975. The Chief of Naval Personnel has asked commanding officers to nominate master chiefs who have performed outstanding service and have shown extraordinary leadership ability. Nominations must be received by the Chief of Naval Personnel by March 1, 1979. Selection will be based upon preliminary screening by the Senior/Master Chief Petty Officer Selection Board with a final screening by a special selection board. The new Master Chief Petty Officer of the Navy will relieve Master Chief Walker on or about Oct. 1, 1979. Further details and application procedures are contained in BUPERSNOTE 1400 of Nov. 6, 1978. Final selection will be made by the Chief of Naval Operations.

Retention, Professionalism Among CNO Objectives

Retention, Professionalism Among CNO Objectives ● Chief of Naval Operations Admiral Thomas B. Hayward has formulated a list of CNO objectives which reflect the relative priorities he will pursue:

1 – Solve the retention problem
2 – Improve the use of our resources
3 – Upgrade officer and enlisted professionalism
4 – Revitalize the one-way concept by upgrading the Naval Reserve
5 – Reduce the administrative burden on operating units
6 – Capitalize on advanced technology
7 – Improve perceptions of the Navy

Details are being forwarded to all flag officers, unit commanders, commanding officers and officers in charge. The OPNAV staff will coordinate with the fleet CINCs to develop plans to accomplish these objectives.

Four Frigates To Be Homeported in Newport ● Four Atlantic Fleet *Knox*-class frigates soon will be homeported in Newport, R.I. USS *Connole* (FF 1056), USS *Miller* (FF 1091), USS *Valdez* (FF 1096) and USS *Capodanno* (FF 1093) will join four reserve destroyers and two minesweepers now homeported in Newport. In March, the Navy announced it would homeport four destroyers in Newport to provide a support base in the Northeast while improving the dispersal of ships in the Atlantic area. These four ships were selected because they were due for a homeport change after overhaul. The first ship to arrive in Newport will be *Capodanno* this winter. The three remaining frigates will arrive by the end of August 1979.

BOOST Program Looking For Applicants ● Last year, approximately 85 percent of the Broadened Opportunity for Officer Selection and Training (BOOST) graduates earned Naval Academy appointments, NROTC scholarships or acceptance to other officer programs. But this year, only a few applications have been received for the 115 BOOST seats set aside for active duty men and women. Commanding officers, especially those at recruit training commands and service schools commands, have been asked to seek out potential applicants and encourage qualified personnel to apply for the program. BOOST is a tailored study program designed to improve an individual's academic abilities in order to better compete for appointment to the Naval Academy or selection for an NROTC scholarship. Its purpose is to give the opportunity for service as a naval officer to those men and women who possess the qualities and have the desire to become naval officers, but whose current academic record may not make them competitive. Deadline for receipt of applications for next year's class is Jan. 5. More Information is contained in BUPERSNOTE 1500 of June 14, 1978.

Bronze Hammer Award Winners Announced ● Quality, ingenuity and imagination were three traits which earned four Navy activities the FY 77/7T Bronze Hammer Award recently. The award recognizes those naval activities which have made the greatest progress in improving the quality of Navy life through self-help projects. Winners are selected for their efforts to enhance their living quarters, personnel support, and welfare and recreation facilities. Presented in four categories, the awards are based on total enlisted allowance and the availability of a construction battalion unit (CBU) in the vicinity of the activity. Winners for FY 77/7T include Naval Station, Norfolk, Va.; Naval Security Group Activity, Northwest, Cheasapeake, Va.; Naval Communication Area Master Station, WESTPAC, Guam; and Naval Air Station, Fallon, Nev. Runners-up were: Naval Training Center, San Diego, Calif.; Naval Air Station, Alameda, Calif.; Naval Weapons Station, Charleston, S.C.; Naval Air Station, Meridian, Miss.; and Naval Security Group Activity, Winter Harbor, Maine.

Arkansas Launched ● The nuclear-powered cruiser *Arkansas* (CGN 41), fourth ship to be named for that state, was launched recently in ceremonies in Newport News, Va. The ship is powered by two nuclear reactors which will allow it to operate at least 10 years before refueling. Armament includes two multipurpose missile launchers, 5"/54-caliber guns and torpedoes. Additionally, the ship can embark helicopters.

What The New Sea Pay Rates Mean ● Personnel on active duty now receiving sea pay will receive at least the same amount as they did under the old rates. Many will receive more if their new rates exceed their old rates, as long as they remain eligible. The new sea pay plan describes the types of ships and the circumstances where sea pay can be paid. Personnel assigned to a category "A" ship or to a unit embarked in that ship, will receive sea pay continuously while they are attached to the ship. Category "A" ships are those most frequently under way. Personnel in category "B" ships, which are normally in home port, will receive the sea pay only when the ship is away from its home port for more than 30 consecutive days. Everyone in the Navy who qualified for the old sea pay rates, even if attached to a category "B" ship which doesn't qualify for the new rates, can still receive the old rate for three years. Under the new plan, Navy petty officers will be paid according to cumulative years of sea duty. Petty officers with more than three years' cumulative sea duty will receive the new higher career sea pay rates, except those in category "B" ships. For example, a petty officer with over three years' cumulative sea duty, will receive $25 per month in fiscal year 1979. A petty officer with over seven years' cumulative sea duty will receive $35 now and $45 in FY 81. Petty officers with more than 12 years' cumulative sea duty will receive $55 this fiscal year and $100 per month in FY 82. The program will be phased in over the next four years.

RADM Chambers Visits Remote Duty Stations ● Rear Admiral Lawrence Chambers, the Assistant Chief of Naval Personnel for Enlisted Development and Distribution, visited McMurdo Station, Antarctica, recently and interviewed the Navy people of Naval Support Force, Antarctica. He met with members of Detachment ALFA, the crew of volunteers who wintered over at McMurdo, and promised to review specific problems they encountered during the wintering over just completed. Next stop on the admiral's itinerary was the island of Diego Garcia in the Indian Ocean where he checked into Diego Garcia's special problems. RADM Chambers will make a brief stop in Subic Bay, R.P., where he and the enlisted detailers who will be in the area at the same time will meet with local naval personnel. He will then fly on to NAVCOMSTA Harold E. Holt, Australia, to meet with personnel stationed at that activity and review their special problems.

COs May Advance Some Enlisted Personnel ● Effective immediately, limited numbers of Navy men and women serving on sea duty in paygrades E-3, 4 and 5 may be advanced to the next higher paygrade by their commanding officer without approval from higher authority. The Command Advancement Program (CAP) is designed to reward superior enlisted performance, but will not replace the Navy examination/advancement process. Although candidates do not have to take the Navy-wide advancement exams to be eligible for CAP selection, they must meet all other rating advancement eligibility requirements. Candidates must be serving on sea duty and have been on board for at least six months. Personnel must be attached to one of the following: commissioned ships; aircraft squadrons less training squadrons; staffs or mobile units which embark or deploy; or isolated, mandatory unaccompanied duty overseas which counts as sea duty, such as Diego Garcia. Specific numbers of enlisted personnel authorized for advancement in the various paygrades, as well as further details are contained in NAVOP 135/78.

New PASS System Working Out Well At Pilot Sites ● Expert service and declining error rates are two of the improvements being reported since the new Military Pay/Personnel Administrative Support System (PASS) went into operation at three pilot sites in the past year. Ultimately, PASS will simplify such routine procedures as check-in and check-out, and ensure greater personnel-pay record accuracy. By centralizing pay and personnel records in one location, PASS will allow one-stop service for pay, personnel and passenger transportation business. In the first phase of the program, pilot PASS offices were established in Washington, D.C.; Norfolk, Va.; and San Diego, Calif. Based on the results and progress in the pilot offices, the decision has been made to implement PASS at shore activities Navywide.

Junior Enlisted Travel Okayed ● A seaman, even if he has less than two years' service, now is eligible to ship his family and household goods to, from, or between overseas duty assignments at government expense. Effective Oct. 17, 1978, both single and married junior enlisted personnel (E-1 through E-4) can receive travel and transportation for their families in the same manner as more senior personnel when assigned overseas. In the past, junior enlisted Navy people with dependents were assigned to unaccompanied tours when transferred overseas and did not have the option to choose an accompanied tour. This option is now available. Further information on eligibility and procedures is contained in NAVOP 129/78.

Dependents' Scholarship Program Accepting Applications ● College-age dependent sons and daughters of Navy personnel may be eligible to compete in the 1979 Dependents' Scholarship Program. The competition is open to dependents of both active duty and former members of the Navy. Eligible dependents must be scheduled to attend college in the Fall of 1979. More than 25 scholarship programs are being offered. Scholarships are awarded by the sponsors of the awards on the basis of scholastic merit, character and financial need. The Chief of Naval Personnel accepts the applications for coordination, and provides necessary information to the awarding Navy-oriented group or association. BUPERS does not have any other role in the selection process. Deadline on receipt of applications and school transcripts by BUPERS (Pers 7311) is March 15, 1979. Details are in BUPERS Notice 1755 of Oct. 11, 1978.

New Soviet V/STOL Aircraft Carrier in Fleet Service ● *Minsk,* the second operational aircraft carrier to join the Soviet navy, has entered fleet service. Although classified by the Soviet Union as an anti-submarine warfare cruiser, the angled flight deck permits operation of both helicopters and vertical/short takeoff or landing (V/STOL) aircraft, and gives the Soviets a tactical air support capability. At 900 feet, *Minsk* is just 200 feet shorter than the newly commissioned USS *Dwight D. Eisenhower* (CVN 69) and displaces approximately 40,000 tons. The ship is steam powered and able to attain speeds in excess of 30 knots. *Minsk* has neither catapults nor arresting gear. The ship's armament includes long and short range surface-to-air missiles, rapid fire medium and small caliber gun mounts, anti-submarine rocket launchers, and long range surface-to-surface anti-ship missiles.

It started with Teddy Roosevelt...

Presidents Who Were Navy Men

BY JO2 DAVEY MATTHEWS

When John F. Kennedy was elected president in 1960, he started a trend—for the past 17 years every president has been a Navy man.

Yet, strong ties between the presidency and the Navy existed long before Kennedy took the oath of office. Theodore Roosevelt was appointed Assistant Secretary of the Navy in 1897. He served for a year then resigned to accept a commission as lieutenant colonel when Congress declared war against Spain. Later, as president, Teddy Roosevelt was a frequent passenger in Navy ships and employed the Navy to impress upon the rest of the world the emergence of the U.S. as a world power.

The Great White Fleet with its 16 first line battlewagons traveled on his orders in 1907 over 46,000 miles "showing the flag."

Another Roosevelt was equally enthusiastic about a strong Navy—Franklin Delano Roosevelt served as Assistant Secretary of the Navy (1913-1920) under Josephus Daniels during the World War I years. His concerns were more people-oriented. For example, he learned that when a ship sank, invariably more men died from drowning than injuries. He ordered that all midshipmen and recruits would learn to swim before they joined the fleet, a ruling that stands to this day.

When the submarine *F-4* went down with all hands lost, Roosevelt was worried about the effect the sinking would have on the morale of the fledgling submarine force. To reassure the men, he personally went aboard a submarine and had the skipper take him down for several dives.

When America got into World War I, Roosevelt tried to resign as Assistant SecNav so that he could don a uniform and get into active service. Secretary of the Navy Josephus Daniels was against it but took Roosevelt's request to President Woodrow Wilson. Roosevelt's work in the Navy Department had not gone unnoticed. Wilson said, "Tell the young man that his only and best war service is to stay where he is."

Probably Roosevelt's most important achievement was pushing through the North Sea Mine Barrage, a project which the British Admiralty declared impossible. The British and French had the Straits of Dover pretty well blocked off with mines, nets and patrols, but long-ranging U-boats were taking the northern route, sinking one out of every four ships leaving the United Kingdom. If this exit of the North Sea could be blocked, the submarine menace would be over.

To block the North Sea would mean stretching a chain of high-explosive mines 250 miles across the exit. Such an undertaking was untried, yet Roosevelt and a group of naval officers felt it would work and lobbied for its adoption. Its success is history.

Throughout the war, Roosevelt dreamed of active duty service. In a letter written by Mrs. Roosevelt during FDR's first of two official trips to Europe, she told a friend that Franklin had ". . . obtained a promise that when he was done he would be permitted to return to Europe as a lieutenant commander attached to the naval railway battery of 14-inch guns under Admiral Plunkett."

Whoever made the promise never kept it. Roosevelt finished out the war in Washington, D.C., doing what he did best.

When Roosevelt became president, he was determined that America would have something to fight with if there was ever another war. When he took office, the Navy had 455 ships. By 1944, our Navy was the world's largest with 1,108 warships and 60,191 other craft. In 1933, the Navy had 919 serviceable airplanes; by the end of hostilities, we had 34,000. Navy personnel strength went from 96,227 in 1933 to nearly four million during the war: 3,269,670 in the Navy; 474,980 Marines; and 171,726 Coast Guardsmen.

And Roosevelt gave more than just his services to the Navy. All four of his sons served in the Armed Forces, three in the Navy and one in the Marines.

In the spring of 1941, a young man fresh out of Harvard tried to sign up in the military. He was turned down because of a back injury he had received playing football. But John F. Kennedy was determined. After a summer of strenuous exercises, Kennedy passed a Navy physical and was accepted as a seaman in September 1941.

Kennedy's military duties were routine desk jobs for more than a year. He requested sea duty and, as the war escalated, was assigned to patrol boat train-

Left: President Franklin D. Roosevelt and Prime Minister Winston Churchill during the Casablanca conference.

Right: LT John F. Kennedy

ing, receiving a commission as a lieutenant (junior grade). In March 1943, he was given command of his own torpedo patrol boat in the South Pacific—*PT 109*.

One-oh-nine was a gasoline-engine torpedo boat, 80 feet long, with a beam of 21 feet, eight inches. The 38-ton craft had a draft of five feet, a complement of 17, and could make 41 knots.

During a patrol in the early morning darkness of Aug. 2, 1943, *PT 109* was rammed and cut in two by the Japanese destroyer *Amagiri*. Kennedy was at the helm.

Two of the 13 men aboard were killed. Kennedy personally rescued three crew members from the burning water surrounding the wreckage.

The 11 men clung to the debris for a time, calling to their lost shipmates. Then, with Kennedy towing a badly burned crew member, the survivors headed for a nearby island.

They were in the water for 15 hours before reaching land. Over the next few days, Kennedy managed to secure aid and food and finally effected the rescue of his men.

In 1945, Kennedy was presented the Navy and Marine Corps medal.

There was another, lesser known PT boat episode in Kennedy's naval career. He was assigned as a skipper of *PT 59*, an 87-foot craft older than *PT 109* with even scantier accommodations. On Nov. 2, 1943, base communications received a call to help a trapped patrol. The remnants of a Marine company—87 men—were trapped on a river bank, surrounded by Japanese. Their fate depended upon the speed with which the PT boats could reach them.

Only a few hours of daylight remained. *PT 59* was at the dock refueling with only 700 hundred gallons onboard (full capacity was 2,200 gallons). *PT 59* had enough fuel to get to the trapped Marines' position at full speed, but not nearly enough for a round trip. The only other boat was fully fueled, but one craft alone could not, if needed, provide enough space for 87 passengers. It was decided that both boats would go and when Kennedy's boat ran out of fuel after the evacuation, the other PT boat would tow him back to base.

When the PTs reached the area, they found two landing craft (LPCRs) waiting. The plan was that the LCPRs would go in to pick up the trapped patrol, relying on the fire power of the PTs to hold the Japanese back from the shore while the Marines boarded. All seemed to be going well until the second landing craft sprang a leak. As they moved out through an opening in the reef and headed for the safety of the open sea, the LCPR took on more water, flooding the engine housing, and began to sink. Kennedy maneuvered *PT 59* between the foundering craft and the now Japanese-lined shore, and crew members began pulling Marines aboard. With more than 50 passengers, *PT 59* pulled sluggishly away, severely overloaded. Kennedy delivered the Marines safely out of range to another landing craft, off-loading all of them except a badly wounded corporal whom Kennedy intended to rush to a medical facility. But there wasn't enough time—the young corporal died in Kennedy's bunk.

It was the last battle action Kennedy would see. The *PT 109* collision and subsequent hours of swimming had aggravated his old back injury. He had also contracted malaria. Kennedy served briefly as an instructor in a PT boat training program in Miami, Fla., then was discharged from active duty in April 1945 as a lieutenant.

At the time of the Pearl Harbor attack, Kennedy's future vice president, Lyndon B. Johnson, was already serving in Congress. One hour after voting yes to the declaration of war on Japan, the congressman from Texas requested the Navy to call him up for active duty—he had been a member of the reserve for several years, holding the rank of lieutenant commander. The next day he was in uniform, the first member of the House of Representa-

Left: CAPT F. L. Conklin, then commander of Chelsea Naval Hospital, presents Navy and Marine Corps medal to LT Kennedy.

tives to enter active duty in WW II.

His first duty assignment was to the staff of the Chief of the U.S.-New Zealand command in San Francisco. But Johnson's idea of serving his country in time of war wasn't paper shuffling. The congressman, a member of the House Naval Affairs Committee and personal friend and protege of President F.D. Roosevelt, used his influence "... to get where the fighting was."

Roosevelt received countless reports on the status of our fighting forces yet felt he needed personal observations on men, morale, equipment, supplies and communications. Since he couldn't go himself, the president wanted to send someone whose opinion he regarded highly. LCDR Johnson received orders to go on a special mission for the president.

Johnson traveled with Army and Air Force representatives to Australia to meet with General Douglas MacArthur at Headquarters, Commander in Chief, Southwest Pacific Theater. Although they were given the gamut of briefings from operations to intelligence, including a personal visit with MacArthur, LCDR Johnson was dissatisified. He had been sent to observe the war and that's just what he wanted to do. After the group left headquarters to continue the inspection, the Air Force official was given the opportunity to accompany the 22nd Bomb Group on a mission. Fully realizing the risks involved, Johnson and the Army officer also requested to go.

LCDR L. B. Johnson at General Douglas MacArthur's headquarters in Australia.

Their destination was the Japanese air base at Lae and each of the three boarded a different B-26 bomber.

Just as they were entering the target area, the B-26 carrying Johnson developed engine trouble, lost power and fell behind the main group. Pilots of *Zeros* protecting the Japanese air base immediately singled out the disabled plane. The B-26 pilot took evasive action, seeking the safety of a low-lying cloud. But within seconds, eight *Zeros* followed him down. By flying low, sometimes as close as 10 feet from the water to keep the *Zeros* away from the vulnerable underbelly of the B-26, the pilot managed to make it back to home base. The other members of the president's special task force didn't fare as well. The plane carrying the Air Force official was badly hit by flak and *Zero* fire, damaging the landing gear. After a dramatic belly-landing, the crew walked away unharmed. The B-26 carrying the third member of the team was shot down with a loss of all hands.

Later, General MacArthur asked Johnson why he took such a risk. Johnson replied "... I'm on a mission for the president to learn all I can about this war . . . and take him back a personal report. I can't do that sitting in headquarters."

A few weeks later, Johnson was stricken with pneumonia. After 12 days in the hospital, he regained enough strength to return to the states—28 pounds lighter—and report to the president. Just before his return, all members of Congress serving in the military were ordered to return to their offices, ending active duty service for Johnson.

Richard M. Nixon left a successful law practice in Whittier, Calif., to take part in the war effort. He went to Washington and a $61-a-week job doing legal work in the Office of Price Administration. After a few months, he decided that, despite his Quaker background, he should help more directly in the war.

He received a Navy commission as a

lieutenant (junior grade) in September 1942. The following year, he was sent to the South Pacific and served on Bougainville, Vella Lavella and Green Islands as operations officer for a Navy air transport unit. After 15 months and two battle stars, Nixon returned to shore duty in the U.S., advancing to lieutenant commander by the time the war was over.

Gerald R. Ford, the fourth Navy man to serve as president, joined the Navy on April 20, 1942. The young ensign had compiled quite an athletic record in college and was assigned to the Navy physical training unit headed by Gene Tunney, the former heavyweight boxing champion. He was sent to the University of North Carolina at Chapel Hill where hundreds of aviation cadets were undergoing training in the Navy's V-5 program. It was his job to see that these cadets were in top physical condition before they completed training and joined the fleet.

LCDR Richard M. Nixon

LT Gerald R. Ford

It was easy shore duty, but Ford soon tired of it and longed to see action. He requested transfer to Norfolk, Va., for gunnery training and then was assigned to the light aircraft carrier USS *Monterey* (CVL 26). Within months, *Monterey* steamed south down the Atlantic coast, through the Panama Canal and into the Pacific to join the U.S. Third Fleet.

In the final year of heavy fighting, *Monterey* participated in almost every major naval engagement of the South Pacific. *Monterey* also supported landings against the Japanese at the Gilberts, Truk, Tinian-Saipan and Palau, in the Philippines, and against Wake, Formosa, and Okinawa; Ford earned 10 battle stars. But Ford's closest brush with death did not involve the Japanese. A typhoon struck the Third Fleet on Dec. 18, 1944. During the storm, *Monterey* caught fire. When general quarters sounded, Ford headed for the flight deck. The ship was pitching violently, sometimes rolling as much as 25 to 30 degrees. As he stepped out on the deck, Ford lost his footing and started sliding toward the sea. He managed to get his feet in front of him and just as he was about to go overboard, his heels caught the slight rim surrounding the deck. He rolled over on his stomach and dropped to the catwalk below. He considered himself lucky—*Monterey* lost five of her crew members to the sea that night.

Ford served 47 months on active duty before returning to Grand Rapids, Mich., with the reserve rank of lieutenant commander and top marks in his service record. Comments in his file included such observations as "...excellent leader...resourceful...steady...at his best in situations dealing directly with people because he commanded the respect of all. . . ."

James Earl (Jimmy) Carter Jr. was a midshipman on a summer cruise when atomic bombs were dropped on Hiroshima and Nagasaki. It was his introduction to the power of the atom bomb.

Jimmy Carter, the first Naval Academy graduate to be elected president of the U.S., stood 59th (of 820 midshipmen) in the Class of '47. After the Academy, Carter served aboard experimental radar and gunnery ships operating out of Norfolk, Va. He completed the required two years of surface ship duty, then volunteered for submarines.

His first submarine was USS *Pomfret* (SS 391). He was aboard her when—like Ford—he nearly lost his life in a storm.

Batteries needed to be recharged periodically. *Pomfret* had to be on the surface so the diesel engines could get air. One night during a storm while batteries were recharging, Carter was on watch on the bridge, only 15 feet above the ocean's surface.

Suddenly, he found himself swimming, his grasp wrenched from a handrail by a giant wave. He was completely separated from the submarine. When the wave receded, he landed on top of the 5-inch gun mount located some 30 feet aft of his watch station. Had the current been broadside instead of fore and aft, Carter could have been lost at sea.

During that storm, *Pomfret's* radio transmitting equipment was drowned out—they could receive but not transmit. When *Pomfret* failed to file her daily position report, she was reported overdue and possibly missing. The submarine headed for port to make repairs but still it was disconcerting to receive a message that said. "To all ships in the Pacific, be on the lookout for floating debris left by submarine USS *Pomfret,* believed to have been sunk approximately 700 miles south of Midway Island."

After serving aboard *Pomfret* for two years, Carter was promoted to lieutenant (junior grade) in 1949 and attached to the Superintendent of Shipbuilding at Groton, Conn., as prospective engineering officer for the *K-1,* first of a new class of submarines. Carter was aboard her when she was commissioned as USS *Barracuda* (SSK-1) in November 1951. Within a year, he had become her executive officer.

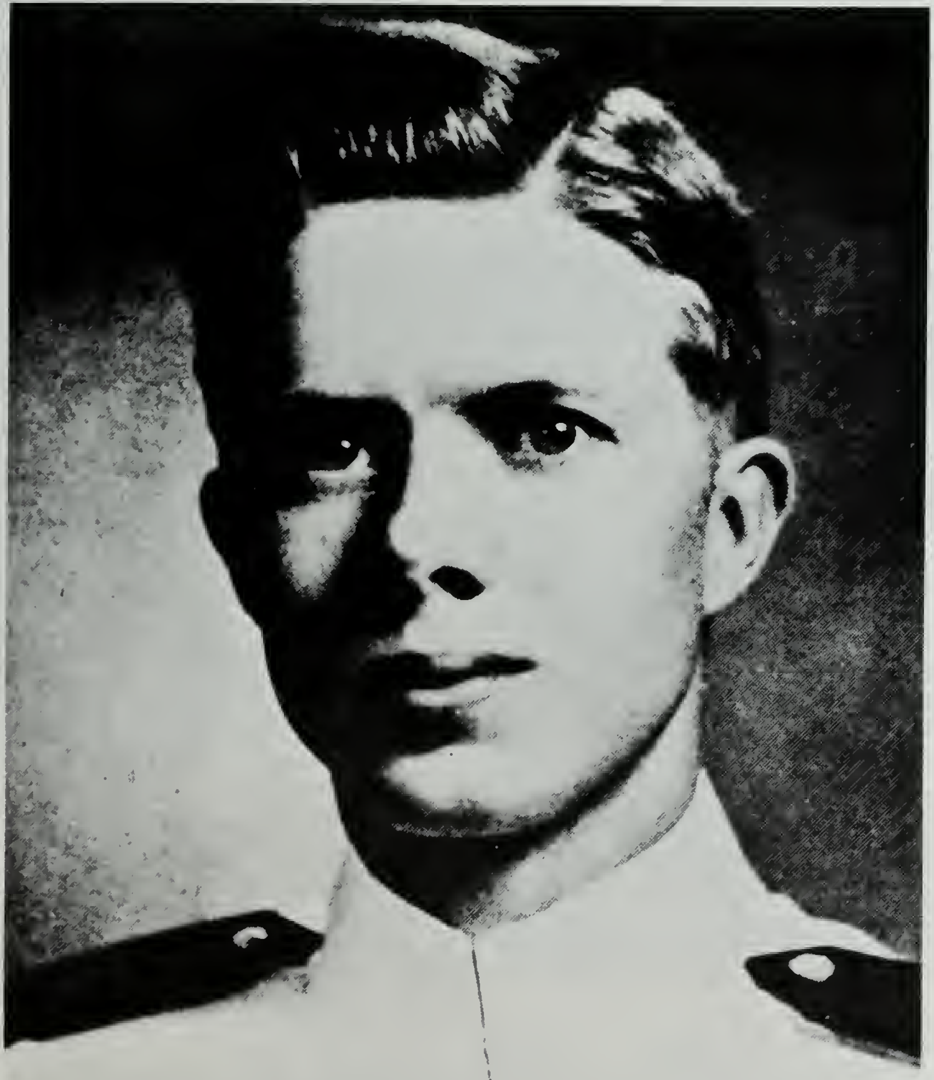
In April 1952, Carter became qualified for submarine command and was picked up as a lieutenant. When the Navy contracted to build prototype atomic-powered submarines, Carter applied for what he felt was ". . .the finest Navy billet available to any officer of my rank—the development of the first atomic submarines." He was ordered to Schenectady, N.Y., as senior officer of the USS *Seawolf* (SSN 575). He worked directly for Admiral Hyman Rickover (then captain), who Carter later said ". . had a profound effect on my life—perhaps more than anyone except my parents."

Carter undertook instruction to become an engineering officer for a nuclear power plant and also assisted in setting up a nuclear propulsion training program for enlisted men. But, in 1953, after his father died, he resigned from the Navy to run the family's business.

"My job was the best and most promising in the Navy, and the work was challenging and worthwhile," he later wrote. "The contact with ADM Rickover alone made it worthwhile. But after some tortuous days, I decided to resign from the Navy and come home to Plains."

His resignation became effective Oct. 9, 1953, after over seven years of service. He was appointed a lieutenant in the Naval Reserve and placed on inactive duty. On Dec. 18, 1961, he transferred, at his own request, to the Retired Reserve without pay or allowances.

President Kennedy once described his years in the Navy as ". . .a time of maturing." Each of the Navy presidents, no matter what age, would probably agree. During this time, many of the concepts and philosophies that resulted in their later being elected president were formed or reinforced. After they served the Navy, these men combined their military and civilian education and experiences to serve the Nation. ⚓



Midshipman James (Jimmy) E. Carter Jr.

Folis Jones
A guy who's been there

STORY BY JO1 JERRY ATCHISON
PHOTOS BY JO1(SS) PETE SUNDBERG

Some people can say the word "retirement" and sigh at the same time. The old fishing hole on a lazy summer day and lots and lots of blissful peace and quiet is the picture painted by that single word.

When Folis Jones retired from the Navy as a Senior Chief Machinist's Mate a few years ago, he, too, had made plans for retirement—but the fishing hole wasn't part of those plans.

This ninth grade dropout went back to school, earned bachelor's and master's degrees in clinical psychology, got a job counseling youthful offenders of the Norfolk area juvenile courts and—oh yeah—became a champion race car driver in his spare time.

This man who calls himself "a dirty old submarine sailor" is a probation officer for kids in trouble, drives a 145-mph-plus formula "B" race car to checkered flags and serves as his own best example of how important he believes education to be. He also believes that the Navy helped make him that way.

* * * *

The two miles of Summit Point Raceway irregularly curve and dip around the foothills of West Virginia's Appalachian mountains. On various weekends from spring to fall, cud-chewing cows give up their country quiet to hundreds of roaring sports cars in search of the fastest way around the track. Sports cars—from little "pinging" Hondas to throaty super-charged Corvettes—set up a roar that, when combined with the voices of a few thousand racing addicts, can only be described as shattering. Folis Jones is usually somewhere in the middle of it all.

A woman waves toward an area resembling a shopping center parking lot at Christmastime: "He's down there somewhere in the pits," she says.

Folis and Evelyn Jones at home in 1972.

Finding Folis appears a hopeless task among the rows of cars in various stages of assembly. But mechanics and drivers are quick to interrupt their work to point the way and offer unsolicited comments.

"He's over in the corner next to the woods," one mechanic indicates with a spark plug wrench. "Tell him my suspension's going to take the race away from him this time."

"That's his camper right there," says a driver clad in flame retardant suit and brandishing a quart of root beer. "Tell him I said 'Good luck and thanks for the gearbox part.' "

Two long-haul family campers, one of them bearing *Folis Jones Racing Chesapeake, Va.,* on the side, bracket a bright yellow car so low it appears to be melting into the ground. A half-dozen people with very serious expressions move over and around the car. After quick introductions the source of those expressions comes out: facing an entire weekend of races (that Folis, by the way, is accustomed to winning) the low-slung yellow car is just not running right. Something's wrong, and time to fix it is running out.

Folis, his wife, son and friends who form his pit crew, interrupt talk of gear ratios and fuel lines to cordially greet visitors while continuing to focus on the troublesome little car.

The visitors, who've not graduated beyond changing the oil in the family

Below: Folis swears that he couldn't win unless his lucky mutt, Two-Spot, accompanied him to every race. Right: Folis is as interested in helping troubled juveniles as he is in winning races. Below: Wife Evelyn wishes Folis luck.

car, shy away when invited to roll up their sleeves and pitch in. Instead, they decide to talk that evening after car "fixin' and racin' " have ended for the day.

Back in the pits that evening, the noise dies as the sun sets. People who've appeared tied to their sports cars since they pulled into the pits now begin to drift among campsites. It's obvious weekend sports car racing brings together a lot of friends who may be separated by hundreds of miles during the week but show up at the same race tracks on the weekends.

The Folis Jones site is no exception. Without asking, one knows the ailing car is fixed and ready for the coming races. A relaxed group of people still sit around the car, but now they virtually ignore it.

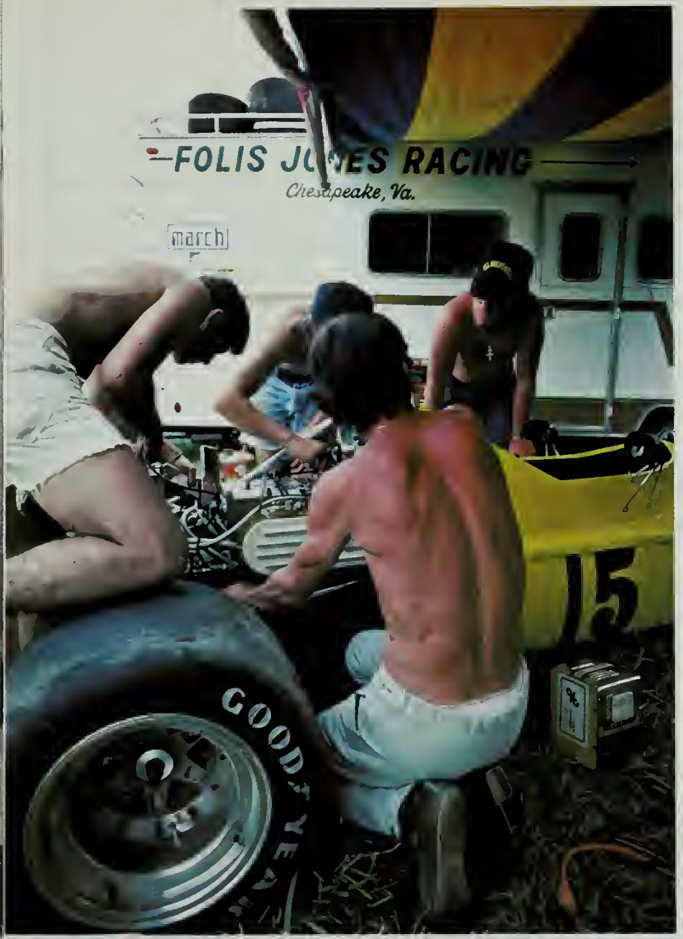
Nothing more can be done, the car is fixed, perfect weather is forecast for the weekend and the group is surrounded by friendly people who share their enjoyment in sports car racing.

Sitting across from Folis Jones you conclude that if ever a man were to be put together by committee, he would be the result. The parts fit...but then they don't. A tense, sinewy body clashes with a wide-open smile topped with laugh-crinkled eyes. His backwoods, molasses accent voices down-home country humor and sophisticated learning with equal ease. He is at once handshake and clout on the head, dirty laborer and fastidious professional all wrapped into a short package who's anxious to get on with it.

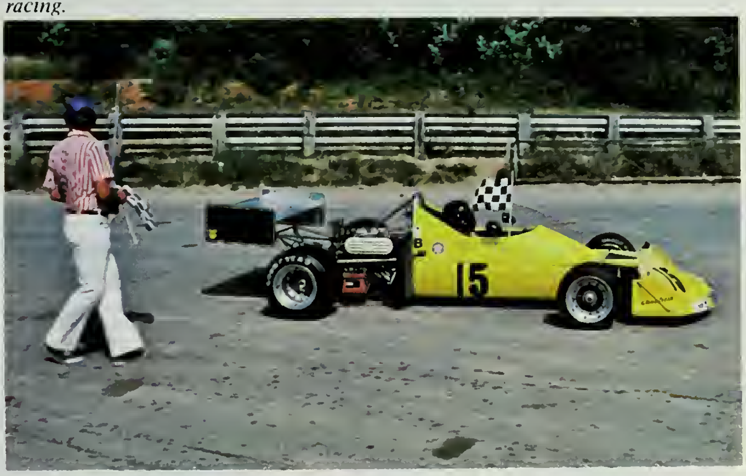
He talks of the long trip from being a trouble-making tough kid who dropped out of ninth grade to the success he is today. And he makes sure the listener understands that the U.S. Navy was the bridge between the two for him.

He met Navy people who pushed him and learned Navy jobs that made him think. For example:

"After I got kicked out of school, I bummed around a bit, delivered for a drugstore for a year and then went into the Navy," he says. "Like most kids I didn't really know what I wanted to do but I'd seen a lot of John Wayne movies, thought it was a neat idea and volun-



Far left: Like squires preparing their knight for battle, Folis' pit crew ensures everything is in order for the race. Left: Racing is more than maneuvering a powerful machine to a checkered flag – there are many hours of preparation involved. Below: Taking the checkered flag is Folis' style of racing.



Folis Jones

teered for the submarine force.

"After about five years in the Navy I didn't even have a GED (General Education Development—high school equivalency certificate). One night this commander I worked for said, 'Folis, you've got some college don't you?' When I told him I was a ninth grade dropout he made me go take the GED test and that sort of started things.

"He used to go to the races with me and one night we were sitting around talking just like we are now and he says, 'If you don't go to college, I think it's going to be a waste. You've got the potential, use it.' "

Folis knew he had the potential but he was just too busy having fun as a sub sailor to do anything about it. He was too busy, that is, until shortly before he retired.

"Just before I got out I went over to Virginia Wesleyan college in Norfolk and talked to the registrar. I wasn't too sure about all this but I thought I'd check it out.

"After I told the registrar about being a dropout and just having a high school GED, he says to me, 'Folis, tell you what, if you want to go to college at the age of 37, if you have faith in us, we'll have faith in you.'

"And you know, it was just fantastic! I did my four years in three and was graduated with honors and then went on to graduate school in psychology at Radford College in Virginia."

Folis' push into education served him well. But, so, too, did some of the lessons he learned as a submarine sailor. One of the first lessons a sub sailor learns—attention to the smallest detail can be the difference between life and death—came back to haunt him after he left the Navy.

"I crashed my race car last year," Folis says matter-of-factly. "I was doing about 100 mph when I hit a barrier. I thought I'd demolished the car and the people watching thought I'd broke my neck. Neither was true but the right front suspension *had* broken. And it broke because I hadn't checked it like I should. It was entirely my fault and I remembered that lesson well."

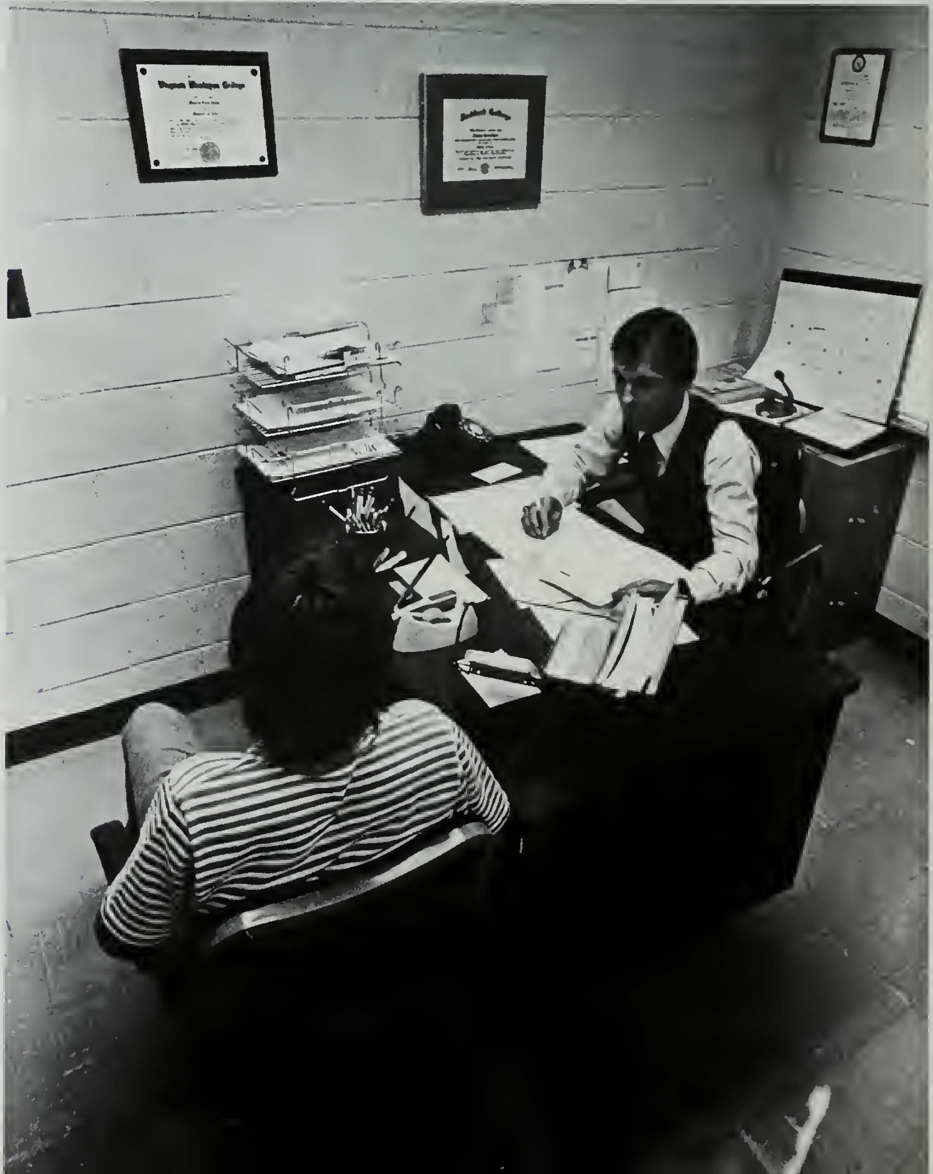
Folis went on to talk of the camaraderie found among submariners and how much of that same sense of belonging brought him into racing.

It's a camaraderie found between him and his pit crew: "The real beauty is working very hard with a group of people who share your love for cars. Being personally involved with a car and not just watching the race makes all the difference in the world. So when I take the car out on the track, it's not my car but *our* car because you can't work on a crew and not have a personal investment in it."

It's also the camaraderie found among racers: "I come back week after week mainly because of the fantastic people involved in sports car racing. These people made the first and most lasting impression. Competitors will lend you any part they've got so you can race. They'll help you any way they can—and that's a mighty big attraction for me."

Coming back to the pit crew Folis has put together, you learn he's not severed his ties with the Navy but has recruited a bunch of skilled Navy mechanics and machinists who love to work on cars. These sailors plus his wife Evelyn ("She's the gear box expert.") and 16-year-old son Chip ("He's got the alignment down pat.") form the nucleus of the pit crew that wins the races.

Folis entry into the world of sports car racing came in 1958 when an "old English guy I knew down in Memphis invited me along to the races one weekend. 'I knew my way around street automobiles but sports car racing to me was something exotic that only rich people did."



So a skeptical Folis went to the races that weekend and worked with the pit crew. "We worked real hard that weekend and when it was all over my friend comes to me and says, 'I like the way you worked and fit in with everybody. Why don't you go with us again.' "

Folis went again...and again. He'd been bitten by the racing bug but didn't aspire to be a driver. He was happy working with the pit crew and seeing "our" car, driven by someone else, go out and win races.

"But one weekend we were up in Tennessee and this guy asked me if I'd like to take his car out for five laps. 'Take it nice and easy,' he says.

"When I came in he says to me, 'Folis, you've got a natural flair for racing. You turned some real respectable laps even though you weren't pushing it.' "

His first race car came by way of a girl friend who'd blown the engine on her MG. "I jokingly told her we'd make a race car out of it," he says. "The next day she brought the title over and said, 'Do it,' so I did."

In short order he went from MGs to "six or seven Formula V cars," to a high-powered Formula Ford he built from the ground up. He learned that if he did the work himself, tapped the expertise of his Navy and racing friends, and counted his pennies, racing was a sport he could afford.

He also credits his family with making racing an affordable hobby. "Both my wife and I work so we get by. In addition, she's been very supportive. For example, she told me the other day we're going to have to plunk down $180 for a part the car needs. But she wasn't complaining—she's into racing as much as I am."

But racing is not his whole life and Folis grows more animated as he talks of "his kids" who are in trouble in Norfolk.

"I'm really lucky," he says. "I did my Master's thesis on adolescent detention homes. That education, coupled with my 20 years in the Navy, means I'm able to draw from both worlds in working with the courts in a big Navy town.

Folis is an optimistic fellow and that optimism seems justified. It's also a trait he tries to instill in the troubled youngsters he works with as a probation officer of the Chesapeake (Va.) Juvenile and Domestic Relations Court. He knows "his kids" can lick their problems with home, the school and court because he's done the same.

"For a lot of kids, the trouble is not with them but with their families. They get kicked out on the street when they're seven years old and have to fend for themselves.

"I'm sensitive to that because although I came out of a good home, I had no father around to be with or work with and that's what some of these kids need.

"So when I'd get in trouble in school, people would always talk down to me. They wouldn't try to get down to the kids' level and work with them. In my case it was simply a matter of nobody ever having sat down with me and asking, 'Folis, what's the matter?' "

Because of that, Folis says he did a lot of growing up in the Navy. And a lot of that growing up was done because, finally, someone *did* want to know "What's the matter?"

Folis also talks of counseling sailors these days in what little spare time is left to him.

"I used to sit on the boat and listen to fellows say, "We I was in college one time but I got tired and left.'

"I know a lot of them never went back to college. So Wesleyan College asked me to go and talk to some of these sailors and get them to return to college. Maybe I can be some kind of model: the guy who came in with a ninth grade education and graduated with honors.

"In turn, maybe some of these sailors will say, 'If they can take a greasy submarine sailor like him and do that maybe there's hope for all of us.' " he said.

Folis leans back in his lawn chair and tries to cover a yawn with a broad smile. It's late and the next days are to be filled with as much racing activity as this day has seen. Referring to his work again and then sensing he's perhaps gotten too serious, Folis points into the darkness toward the race track and says, "Aw, what the heck. I'm having a great time. I just want to go out and play like everyone else."

That weekend, Folis went on to "play" his way to a checkered flag and the championship. Not bad for "a greasy sub sailor." ⚓

Foreign Military Training

It's a two-way street

Back in 1854, when Commodore Perry's coal-burning ships first sailed into Japanese waters, the local residents thought an entire fleet of ships had caught fire.

But 11 years later, the novelty of ships that moved without sails had worn off. Japan had her first steam warship and the United States was sharing her military technology and expertise with friends around the world.

Today, the 20th century version of America's military developments continues that tradition of helping the armed forces of countries friendly with the United States.

Under the umbrella of the International Security Assistance Program, the U.S. Navy is doing its part to support the president's call to "utilize arms transfers to promote our security and the security of our friends."

Now it's pretty easy to see that a country receiving U.S. military technology—the most advanced in the world—is going to reap some obvious rewards. But what many don't realize is that very real benefits accrue to the United States as well.

Take one aspect of the International Security Assistance Program—Foreign Military Sales (FMS). This is a program where Uncle Sam replies to requests for sale of sophisticated weapons systems, technologies and training from countries friendly to the U.S. (consistent, of course, with America's own needs to ensure the security and well-being of her people).

Perry arrives in Japan aboard coal-burning ships never before seen by the Japanese. (Note smokestacks between ships' masts.)

Public law requires that no costs to the U.S. Government are involved as a result of FMS. Accordingly, the nations that buy U.S. military technology must pay not only for the equipment, but for the training of their people and all administrative costs.

Countries purchasing military technology also help fund such initial costs as those for research and development, procurement and logistic support.

The sale of military equipment to our friends and allies is primarily advantageous from a broad, military point of view. It increases the capabilities of nations friendly to the U.S. and thus strengthens the overall defense posture of the free world.

Foreign Military Sales also provides what military planners call "commonality"—shared military technology that allows the U.S. to work more closely with friendly armed forces in conducting operations at sea and ashore.

The sale of U.S.-designed and manufactured military technology to foreign countries, incidentally, makes a large contribution to America's balance of payments situation. In fact, the U.S. Navy's FMS program alone has averaged more than $2 billion annually in sales since 1973.

All of these benefits from FMS look nice on paper and work even better in practice. But what of the U.S. Navy's participation in the program, or "What's in it for the Navy?"

The Navy certainly shares with her sister services the previously mentioned benefits. But for some Navy men and women, there is an added benefit of working with and teaching foreign sailors who come to the United States to learn the technology of systems their countries have bought from the U.S. The result is a challenging and rewarding program that enables visiting military students to gain greater knowledge of the American people and their democratic system of government while learning some of the most advanced technologies in use today.

When foreign sailors complete their training in the United States, they take not only newly learned technical skills back to their respective navies, but a personal and candid view of life in the United States as well—all courtesy of the U.S. Navy.

Before examining the rewards of helping people learn about life in the U.S., though, one must consider the main reason for bringing these sailors to the U.S.: training.

U.S. Navy sailors spend a lot of time in Navy and company-related schools. It makes sense because they are members of the most technologically advanced Navy in the world. We all know why we attend these schools, but

Right: Iranian students receive electronics training at NTC, San Diego. Below: An Italian Navy Lieutenant discusses amphibious operations with a Marine Corps major.

what about that fellow classmate in the uniform of Canada, or Norway or a score of other countries? Who is he, what's he doing here and why?

We've already explained that FMS is one reason students from other navies attend U.S. Navy schools. What type of sailor, though, is this other classmate?

A bit of insight comes to those who understand that no matter where this classmate comes from, his homeland directs that training in the United States, wherever possible, be granted only to the most capable learner.

This is so (with a few exceptions that are explained later) for two reasons. First is the fact that foreign governments, as previously noted, pay for all aspects of their sailor's training. For many, this expense is much more than would be spent for training the average sailor at home. The second reason, though, makes this expense more palatable. The U.S.-trained sailor is often expected not only to operate and maintain the equipment once he returns home, but also to teach and pass on those same intricate technical procedures.

Because of this, the U.S. Navy sailor might be surprised to learn that his foreign classmate:

- Was carefully screened by his parent service and was assigned on the basis of experience, maturity and demonstrated aptitude to learn the information being taught.
- Was required to either demonstrate fluency in the English language or to successfully complete an English language course (also paid for by his government) before being enrolled in a U.S. Navy training program.
- May also be expected to complete—one right after the other—various basic and advanced courses that a U.S. Navy petty officer would normally attend over a five- to 15-year period. For the U.S. Navy petty officer, formal schools are interspersed with several sea or shore duty tours to allow the individual to use his technical skills as each was learned—getting field experience to complement school instruction and gaining additional knowledge before attending the advanced courses. Since the world's navies are pursuing a course of technological catch-up with the U.S. Navy, they do not share the luxury of time: time to teach, reinforce that teaching through experience and then furnish advanced skills. Along with all the other pressures, academic heat is applied to those who must learn more, learn it faster and learn it in a new language.

However, some foreign sailors who come to U.S. Navy training activities are untried and untested. Indeed, they may have never even seen a ship. Saudi Arabia, for example, has contracted with the U.S. Navy to provide boot camp training for its recruits. And Iran is sending entire crews to the U.S.—from seaman recruit to captain—to learn to operate their recently purchased DD-993-class destroyers, their version of the *Spruance*—class DDs.

The training they receive is developed and administered by the Chief of Naval Education and Training, the Chief of Naval Technical Training, and the Fleet Commanders in cooperation with the requesting country and the Security Assistance Division (OP-63) of the Office of the Chief of Naval Operations.

While attending U.S. Navy schools, foreign students are assisted by both

An Italian Naval aviation student suits up for training at Naval Air Station, Pensacola, Fla.

U.S. Navy and homeland liaison people either physically present on base or readily available to help from their major command locations. These liaison people help the foreign sailor get settled into his temporary home while answering basic questions that range from "Where's my next class?" to "Why do Americans drive on the *wrong* side of the road?"

While integrating the foreign student into existing U.S. Navy training programs is the most economical and efficient method of training, unique training or security requirements may sometimes mean developing separate foreign training courses. These, too, are developed and administered in the same manner with the foreign government's review and approval.

Foreign students are not subject to the Uniform Code of Military Justice (UCMJ) since each country has its own set of professional and ethical standards by which they must abide. They are still accountable for their behavior and performance while undergoing training in the United States. To this end, mutually agreeable policies are worked out with each participating country so as to ensure the best interests of both the U.S. and the students.

Uniform standards vary. These, too, are studied so as to set foreign student standards that neither conflict with, nor reflect unfavorably upon, either country's ideas of proper uniform appearance.

Conduct and uniforms notwithstanding, foreign countries would be hard-pressed to duplicate the level of sophisticated training provided at U.S. Navy schools by U.S. Navy instructors.

And it would be impossible to duplicate the people, places and, even beliefs, that make up life in America to which these foreign sailors have been exposed.

Indeed, throughout the United States, the Navy is making sure foreign trainees get a chance at that intangible benefit of FMS: an active appreciation of American people and their ideals. This is in addition, of course, to their military training.

Foreign trainees—actually the future leaders and shapers of their respective navies—are absorbing intimate insights of a country and its Navy that they may some day fight alongside of as allies—or mutually support.

Each U.S. Navy command sets up its own information program for foreign students depending upon the number of students and the countries represented. Each program is governed by the desire to see the foreign sailor receive a warm reception in the United States and the hospitality—and help—Americans pride themselves in rendering.

These information programs may include such things as acclimatization courses, field trips, special lectures and seminars, cultural and sports events, representational functions, or any combination of events. For many foreign sailors, though, the real rewards come from the friendships they develop in the States and the memories they take back to their homelands.

As everyone knows, friendships and memories are intangible benefits. These can't be measured, weighed or categorized by cost-effectiveness. They're grouped right up there with happiness and all those other things money can't buy.

That's why it is a benefit of Foreign Military Sales that defies measurement while perhaps making the strongest case for the importance of such programs. Call it putting the cherry on the FMS sundae if you will, but don't expect "lifetime friendships and memories" to show up on the bookkeeper's ledger. More likely it will be found in the "Thank yous" voiced in a score of different languages (accented, yes) from U.S.-trained foreign sailors around the world. ⚓

An Iranian Chief Petty Officer works on equipment in a teletype repair class at NTC, San Diego, Calif.

Dr. Nathaniel Bowditch

Salem's Arithmetic Sailor

BY JO1 DAN WHEELER

No 19th century seaman walked the dusty road to port and signed on a square-rigger without bringing three essentials: a sharp knife, a pair of woolen socks for rounding the Horn, and his Bowditch tucked safely in his seabag. The knife could lose its edge, the socks would wear out, but *The New American Practical Navigator*—his Bowditch—would never fail. It could guide him to the far-flung reaches of the earth and bring him home again from across trackless oceans.

Within its covers was a lifetime of sea sense written in concise prose. It addressed every subject of interest to the mariner from tides to trigonometry. The Bowditch covered square-rigger maneuvers and commands for their accomplishment. It contained sections on astronomy, geometry, decimals and fractions. Starting with simple arithmetic, the "seaman's bible" guided readers patiently into the calculus of navigation with numerous excursions into geography, mensuration and surveying. When a sailor read his Bowditch, he was sitting at the feet of the master.

The Early Years

Nathaniel Bowditch was born March 26, 1773, in Salem, Mass., the son of a poor cooper (barrel maker) and the fourth of seven children. He had little formal education—a few months in the Danver, Mass., "dame school," three years under the tutelage of Mr. Watson of Salem, and two months of bookkeeping instruction from Mr. Walsh.

When Bowditch was 10, his mother died leaving his father Habakkuk with seven mouths to feed and not enough time nor money to accomplish the task. Some of the children were farmed out to relatives, but Nathaniel was apprenticed to "Ropes and Hodges, Chandlers," who paid little but provided room and board. Working 12 hours or more daily left Bowditch little time for normal pleasures of youth, yet he managed to pursue what he enjoyed most. It was said that Bowditch "spent every spare moment... in some corner of the chandlery studying."

Libraries were rare, even in homes of the wealthy, and reading was not considered a skill necessary for the

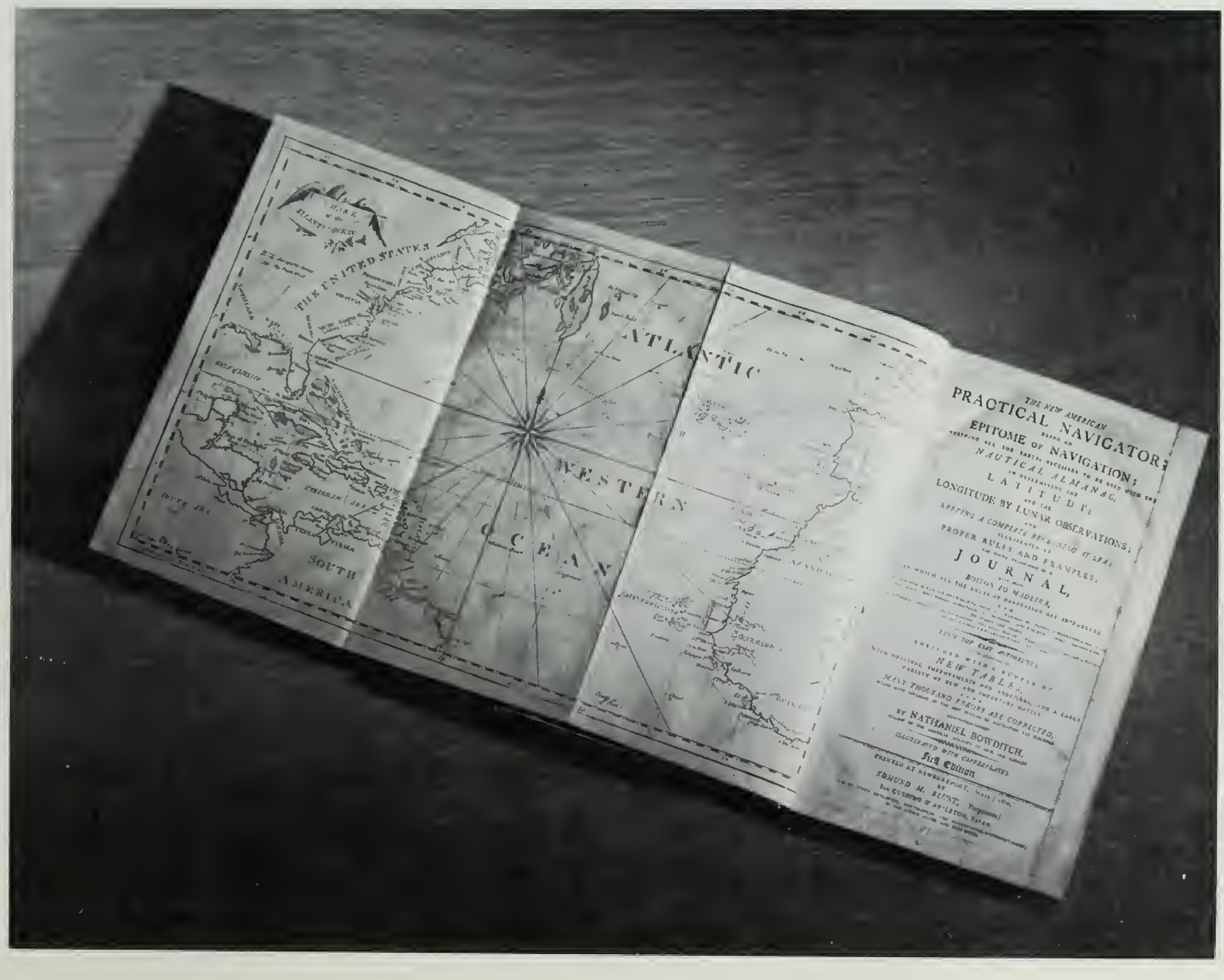
This portrait of Dr. Nathaniel Bowditch by Marcia Oakes Woodbury shows the "arithmetic sailor" in his later years. (Photo courtesy of Essex Institute, Salem, Mass.)

majority. Salem, however, had bought a well-stocked library from Beverly, Mass., privateers who had "liberated" it from an English vessel sailing the Irish Sea. Placed at Bowditch's disposal by its custodian, Salem's Philosophical Library (considered second only to the one in Philadelphia) became the teenager's schoolroom. Rising before dawn Bowditch went to Judge Roper's home and studied and copied articles and books which interested him. In the evenings, he returned for a few hours more.

By the time he was 14, Bowditch had developed a serious interest in navigation and astronomy and was already a scholar in both. His interests, however, weren't limited to scientific and technical subjects. He was conversant on Shakespeare and the Bible and had read the four volumes of Chamber's Encyclopedia from cover to cover. Having a remarkably retentive memory (except for names and faces), Bowditch often astounded friends with his wide range of knowledge and made no effort to conceal the extent of his scholarship—a trait which was to alienate acquaintances all his life.

Probably the greatest stride in Bowditch's education came when Reverend William Bently lent him a Latin-language copy of Sir Isaac Newton's *Principia Mathematica,* the contents of which challenged the greatest mathematical minds of the day. At first, Bowditch tried to understand the book by toying with the various formulas. Failing at this, he began to teach himself Latin so he could read Newton's notes. Four years later, Bowditch not only had read *Principia Mathematica,* but also had found and corrected an error in it!

Realizing, then, that the key to unlocking the world's secrets lay, at least in part, in understanding the world's languages, Bowditch began teaching himself other tongues. He purchased a New Testament in the language he desired to learn and a dictionary of the language or dialect if it were available (many weren't). So armed, Bowditch translated the scriptures, paying close attention to vocabulary and syntax (but none to



THE NEW AMERICAN
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MANY THOUSAND ERRORS ARE CORRECTED,
BY NATHANIEL BOWDITCH,
ILLUSTRATED WITH COPPERPLATES.
First Edition
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BY
EDMUND M. BLUNT, (Proprietor)
For CUSHING & APPLETON, SALEM.

The inside front cover of The New American Practical Navigator *as it appeared in the first edition printed in 1802. It contained only 593 pages compared to the most recent edition's 2,100 pages. (Photo courtesy of The Peabody Museum Salem, Mass.)*

pronunciation; in fact, it wasn't until years later that he realized that each language has its own unique pronunciation key). By the time his translation was completed, he knew the written language.

It has been said that Bowditch taught himself at least 50 languages and dialects in this manner. At his death, more than 50 foreign and 100 English language dictionaries were found in his library—silent testimony to his love of languages and his insistence on using the most exact words to convey his thoughts.

As a diversion, Bowditch learned to play the flute and, for a short time, performed in a small musical group. He gave it up, however, as a "frivolous waste of time." Time was extremely important to the young scholar; obviously so, since all Bowditch learned about the sciences and math, he learned in his spare time away from the job.

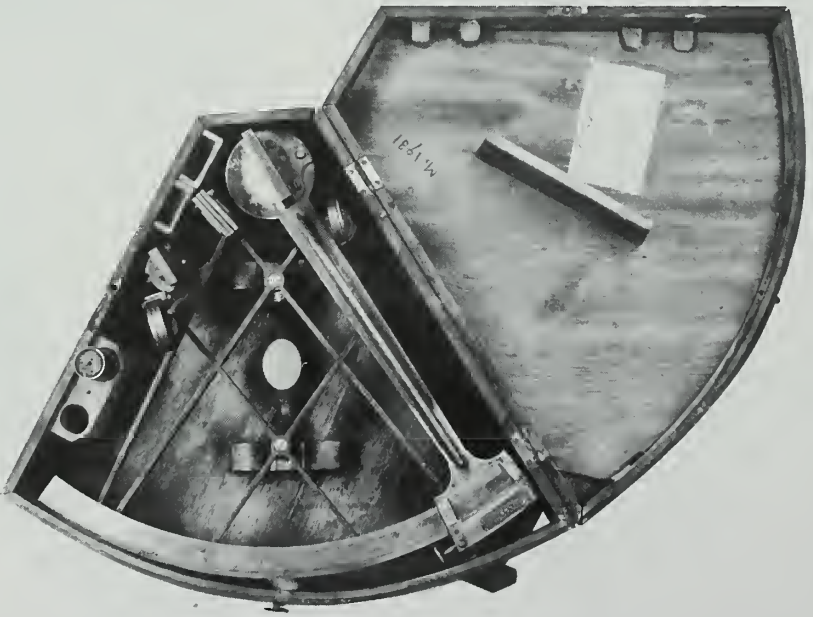
Bowditch Goes To Sea

Ropes and Hodges went out of business in 1792, and Bowditch went to work for Samuel C. Ward, another chandler. By then, he had thoroughly versed himself in navigation and astronomy through 10 years' intensive study. Late in the summer of 1794—his apprenticeships completed—Bowditch signed on as captain's clerk on a Salem merchantman owned by Elias Hasket Derby and commanded by Captain Henry Prince, a master of some renown and an old family friend.

Though Bowditch, a frail youth with a family history of TB, was hardly considered seaman material, Prince was eager to learn more about the youth's controversial theories on navigation. Bowditch—never one to keep his thoughts to himself—outspokenly believed mariners could navigate precisely by placing their faith in the unvarying stars. By so doing, Bowditch said, masters could guide their ships to or from any land bounded by the sea; moreover, they could fix their exact position at any time under way.

Seasoned mariners scoffed at this heresy. They had seen barnacled wrecks hard aground, placed there by arithmetic sailors who had put their faith in paper and pencil instead of the look of the ocean, the feel of the wind and their seaman's eye. To trust anything but practical experience, to their minds, was a sure passage to Davy Jones's locker.

Sextant used by Dr. Bowditch during his voyages in Astrea *and* Putnam. *(Photo courtesy of The Peabody Museum)*



Celestial navigation was not a new concept. What *was* new was Bowditch's contention that one could fix a position on the open sea by relying solely on formulas, tables and charts. No chronometer in use at that time was reliable enough for use at sea.

Any mariner with good instruments and a cursory knowledge of math could determine his ship's position north or south of the equator. No mariner had found a foolproof way to determine longitude, his position east or west of the prime meridian at Greenwich, England. Being able to fix an exact position at sea would shorten voyages by months, even years.

In the winter of 1795, en route to the East Indies, Bowditch made a concise, but significant, entry in his personal log: ". . .Thursday, thought of method of making lunar observations."

By means of three consecutive observations of the moon and a fixed star (the sun), Bowditch was able to calculate the angular distance between them. From that calculation, he determined the Greenwich time from the *Nautical Almanac,* a work published annually by the Commissioners of Longitude in London. Then, using computed Greenwich time, he was able to fix *the ship's exact position.*

For the first time, an accurate method of fixing longitude had been devised. Before Bowditch turned his vast mathematical genius to navigation, there was no certain way of knowing what lay beyond the horizon. He had placed the world in the able hands of men who heeded the call of deep water.

(Around 1800, an accurate chronometer was invented, but its price placed it out of the reach of virtually all mariners. Bowitch's method of fixing longitude is no longer used since modern chronometers do the job quicker and are today aided by all manner of electronic gear. Still, his discovery was of enormous importance to the world's 19th century navigators).

John Hamilton Moore, an English chart seller, hydrographer and navigation teacher, had compiled a navigation text which was used by mariners during the late 1700s. Though no volume could be error-free, Moore's *The Practical Navigator* was considered generally reliable.

During Bowditch's second voyage—this time as supercargo, again under the command of Captain Prince—he kept meticulous records of celestial observations and fixes and compared them to Moore's computations. To Bowditch's astonishment, Moore's calculations were frequently inaccurate, with some errors so serious that a mariner could easily find himself as many as 23 miles off course—a dangerous deviation, especially near jutting coasts.

News of Bowditch's discovery of Moore's errors was widespread and came to the attention of Edmund Blunt of Newburyport, Mass. Blunt had published an American edition of *The Practical Navigator* previously and intended to publish a second edition in 1798. When he heard of the errors, he asked for a conference with Bowditch. Bowditch agreed to make some corrections for the second edition and to write a thoroughly corrected version on an upcoming voyage.

Moore's 8,000 Mistakes

During Bowditch's third voyage, however, he discovered that The Practical Navigator contained so many errors—more than 8,000—that a revision was impractical. Every table had to be recomputed and the book entirely rewritten. Bowditch proposed to Blunt that a new volume be written from scratch and that it be entitled *The New American Practical Navigator,* by Nathaniel Bowditch. Blunt agreed.

Bowditch began his fourth voyage, again as supercargo, under Captain Prince on July 23, 1799, this time en route to Manila. Bowditch divided his time between charting his vessel's (the *Astrea*) course and reworking Moore's tables. During the voyage, it occurred to Bowditch that all of his computations, charts and tables would be worthless to mariners unless each would be able to understand and use them.

To this end, Bowditch began holding school call under way and refined his writing technique by refining his teaching techniques. He chalked diagrams on the holystoned decks of *Astrea* until every sailor from cabin boy to captain could use his tables and a sextant precisely. He refined his instruments to the point that the most uneducated seamen could take accurate fixes after a few hours' instruction.

Drawing on teaching techniques he saw to be effective, Bowditch put down in precise and simple language the methods he had devised for taking bearings, calculating distances, speeds and other data vital to mariners. In short, he began to compile a bible for seamen which included everything men knew about ships and the sea up to that time.

Astrea reached Manila in the record time of six months, 23 days. It was conceded that there "was more knowledge of navigation on board that ship than there was on all the vessels that ever floated in Manila Bay."

Captain Prince said that each one of his men could take a lunar sighting and work up a position "as well as Sir Isaac Newton himself, were he alive." *Astrea* was back to Salem 14 months after getting under way, having completed a voyage which usually took three or more years using conventional navigational methods.

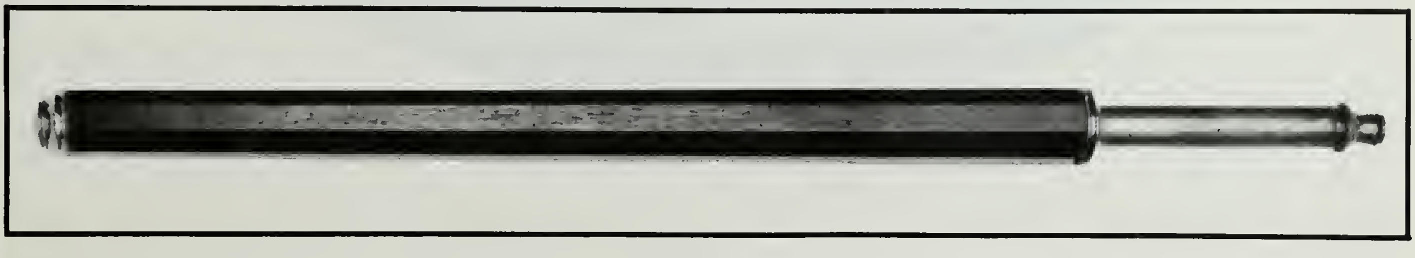
For two years following his fourth voyage, Bowditch remained on shore writing his book. Distraught by Moore's grievous errors and the damage they had done to the scientific image and determined that his book would be error free, Bowditch calculated every figure in his tables three times.

The Seaman's Bible

The first edition of *The New American Practical Navigator,* published in June 1802, contained 593 pages (small compared to the 1977 edition published by the U.S. Hydrographic Office and containing 2,100 pages). It was not an overnight success. Though it was immediately recognized by scholars as a landmark work and Harvard University awarded Bowditch a master's degree and later a doctorate, *The New American Practical Navigator* was ignored by the community for which it had been written—mariners. They regarded it as yet another hodgepodge of scholarly mumbo jumbo written by an arithmetic sailor with no sea sense.

Realizing no immediate profit from his work and having a family to support, Bowditch either bought into or was given a share of the merchant ship *Putnam.* Sailing for the fifth and last time, Captain Bowditch set out in *Putnam* for a trading mission to Sumatra's Pepper Islands.

Returning *Putnam* to New England on Christmas Eve, 1803, Bowditch found himself in a blinding northeaster, typical of the weather he had encountered for much of his voyage up the American coast. No observations had been possible for two or three days but, according to one contemporary



This telescope, once owned by Bowditch, was made in England around 1770. The mahogany tube measures 25-3/4 inches closed and 32-3/4 inches fully extended. (Photo courtesy of The Peabody Museum) account, "the old man drove along as if it were noonday." A single break in the storm afforded the opportunity to take a lunar sighting and Bowditch docked his ship without a thump.

Putnam's trading mission had been successful, but more than that, Bowditch had proved the worth of *The New American Practical Navigator*. From then on, the "Bowditch method" of navigation—precise and by the stars—was widely taught and continues to be taught to this day. To a large extent, Bowditch made possible the great age of American shipping by teaching seafarers how to find their way.

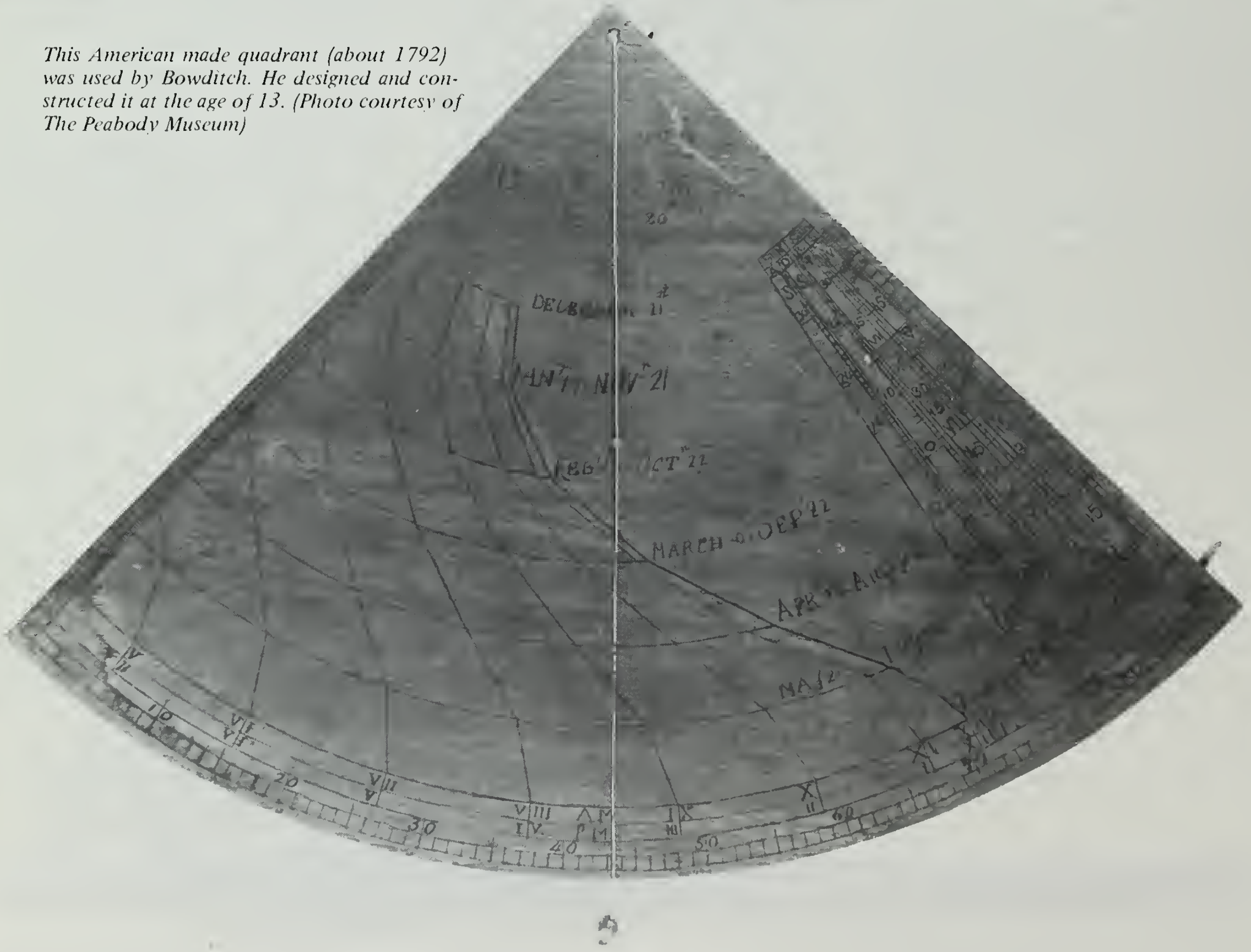
In recognition of his accomplishments, Harvard University, the University of Virginia and the U.S. Military Academy at West Point offered Bowditch professorships in mathematics. Each of these he refused because he was shy about talking in front of assemblies. He consented, however, to teach individuals he deemed promising.

In 1818, Bowditch was chosen a member of the Royal Society of London and Edinburgh and was enrolled on the list of the Royal Irish Academy. He was made an associate of the Astronomical Society of London, the Academies of Berlin and Palermo, and, at the time of his death, he was being chosen a member of the National Institute of France.

In 1824, Bowditch left Salem and moved to Boston where he headed two large insurance companies, one marine and the other life. In 1838, Bowditch became seriously ill and was confined to his home where he spent his remaining days.

On March 16, 1838—the day Dr. Nathaniel Bowditch died—ships of live oak with masts of Georgia pine flew their flags at half-mast. Cadets at the United States Naval School in Philadelphia wore badges of mourning and mariners everywhere lamented the passing of a good and trusted shipmate.

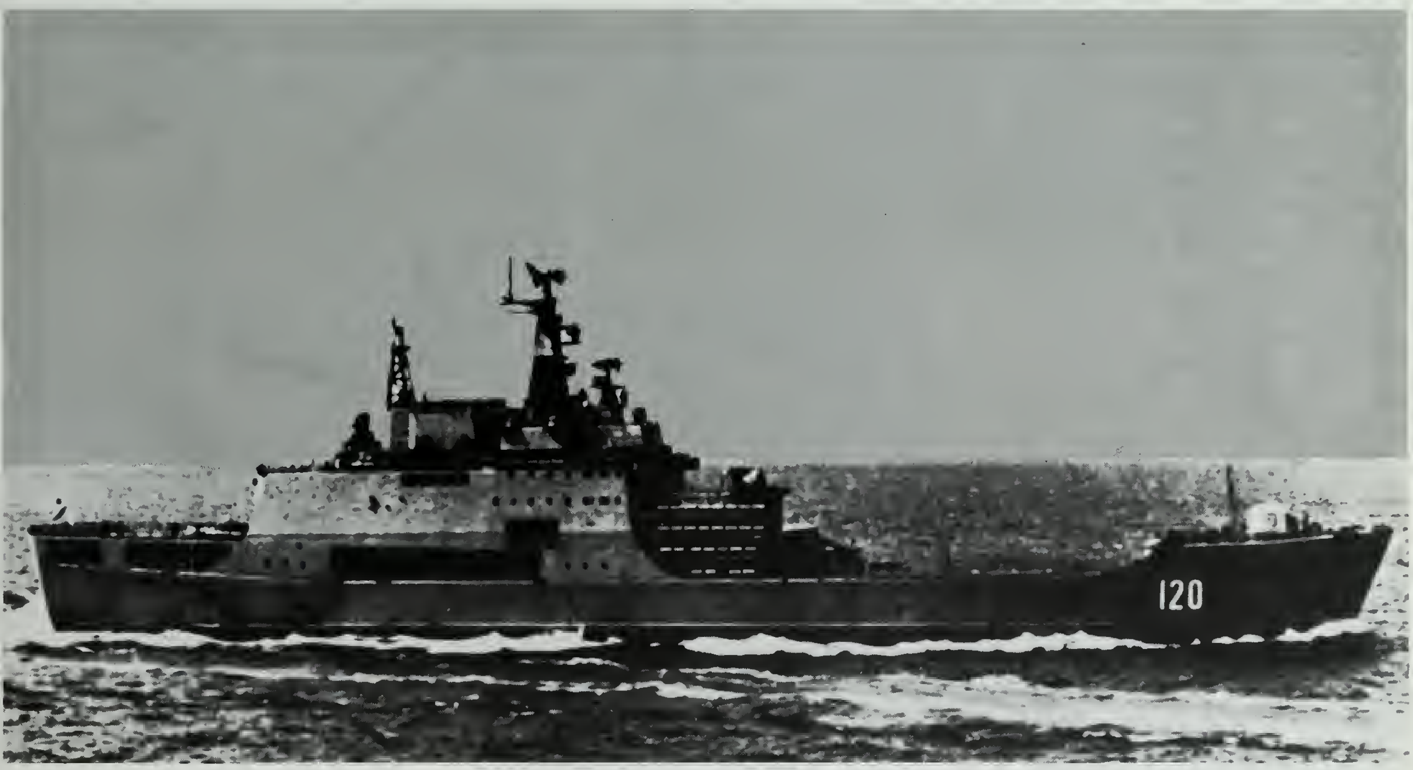
Salem's 'irascible little arithmetic sailor was eulogized by the Boston Marine Society in these words: "As an astronomer, a mathematician, and a navigator himself, a friend and benefactor has he been to the navigator and the seaman and few can so justly appreciate the excellence and utility of his labors, as the members of this society. . . His intuitive mind sought and amassed knowledge to impart it to the world in more easy forms. . . As long as ships shall sail, the needle points to the north, and the stars go through their wonted courses in the heavens, the name of Doctor Bowditch will be revered."



This American made quadrant (about 1792) was used by Bowditch. He designed and constructed it at the age of 13. (Photo courtesy of The Peabody Museum)

Ivan Rogov–

Extending the Soviet Sphere



Ivan Rogov, newest of the Soviet navy's amphibious warfare ships, recently was seen operating in the Baltic Sea. Believed to be the first of several such ships, it is the largest amphibious ship ever built by the Soviet Union.

The new ship, comparable to a U.S. Navy amphibious transport dock (LPD), has bow doors, a stern gate affixed to what is believed to be a floodable well deck, and a helicopter storage and landing area above the well deck.

Ivan Rogov is believed capable of carrying conventional landing craft or about three air-cushioned personnel landing craft. Each one of these air-cushioned craft can hold about a platoon of naval infantry and make rapid landings at speeds in execess of 45 miles-per-hour. Naval infantry, the Soviet navy's version of our Marine Corps, is a small mechanized force equipped with tracked and wheeled amphibious vehicles, including tanks and armored personnel carriers.

The size of *Ivan Rogov,* with its increased assault lift capacity, gives it a far greater capability for long range amphibious operations than other Soviet amphibious ships.

The construction of the ship indicates the continuation of the trend in the Soviet navy to grow from a coastal defense force to a first class blue water navy. The new ship is expected to remain in the Atlantic area. However, as additional ships are built, it is likely that some will be assigned to the Pacific fleet.

Continued production of the *Ivan Rogov* class, along with other Soviet naval developments, will significantly increase future Soviet amphibious capabilities. ⚓

Bearings

Weekend Drills Vary

From the East Coast to the mid-Pacific, the Naval Reserve is maintaining preparedness, making sure it will be ready if called.

Naval reservisits in Maryland are discovering their weekly drills do not always mean classrooms with training lectures, charts and graphs, at least not for the members of the Military Sealift Command Headquarters Unit Detachment 206. Led by Captain Donald Lynne, the reservists recently toured the Bethlehem Steel Corporation's shipbuilding facility at Sparrows Point, Md., and the Dundalk Marine Terminal in Baltimore, Md., for their drill weekend.

The visits exposed the members to modern shipbuilding techniques and methods of handling containerized cargo. In the event of a national emergency, the reservists may have to use similar facilities throughout the country.

* * *

Meanwhile, sailors visiting the barber shop at Hawaii's Pacific Fleet Missile Range Facility (PMRF) at Barking Sands, Kauai, looking for a shave and a haircut were in for a surprise.

Under the familiar red and white striped barber pole, Navy personnel and their dependents were attended by personnel who were more interested in teeth than in hair.

It was the first time naval reservisits in dental specialties gave examinations, dental hygiene seminars, fluoride treatments, and the like in a barber shop, a practice practically unheard of since the days when tonsorial technicians worked the boomtowns of the old West.

Members of Naval Reserve Company, Headquarters 119, from Long Beach, Calif., three dental officers and four enlisted technicians visited Hawaii for two weeks of active duty. They trained at Pearl Harbor Naval Base, Naval Air Station Barbers Point and PMRF Barking Sands.

* * *

Far out in the Pacific, four NRF units, USS *Hammer* (DD 718), USS *Higbee* (DD 806), USS *Paul Revere* (LPA 248)—all units of Destroyer Squadron 37—and one unit from Destroyer Squadron 27, USS *Carpenter* (DD 825), were participating in an intensive Third Fleet training exercise. Called Comptuex 2-78, the exercise was designed to enhance overall unit training and readiness. It involved 13 ships and 4,500 personnel, 600 of whom were naval reservisits.

Comptuex 2-78 was the first opportunity in four years for NRF units to participate in mid-Pacific training.

Left: Members of Military Sealift Command Detachment 206 are briefed on managing military cargoes at Dundalk Marine Terminal.

High Lift

Many people look at a Navy helicopter and that's all they see—a helicopter and nothing more. However, when Navy designers and engineers examine a "whirlybird," they see thousands of intricate component parts, any of which might be a candidate for improvement.

That was the consensus in the late 1960s when Navy designers took a closer look at helicopter rotor blades and decided they could design better ones. The result of subsequent research was the circulation control (CC) rotor, developed during the course of 10 years' study and testing at the David W. Taylor Naval Ship R&D Center in Carderock, Md.

The CC rotor is mechanically driven and has relatively thick, hingeless blades with rounded, trailing edges. Low pressure air is pumped into the blades and ejected from a thin slot on the upper surface of the trailing edges.

Due to an aerodynamic phenomenon, the air remains attached to the rounded edges until it reaches the lower surfaces, thus creating high lift.

The new rotor is a simplier, lighter and smaller substitute for rotors now in use. Though easier to maintain and less complex, it offers increased flight performance. Attached to a Navy H-2 twin-engine helicopter during recent wind tunnel tests, the rotor operated at speeds of up to 150 knots and demonstrated excellent control capability. The first actual flight demonstration is tentatively scheduled for next February to test its performance.

'Express' Re-up

With a few last minute hand raising ceremonies and careful calculations, the combat stores ship USS *White Plains* (AFS 4) hoisted her Bravo Zulu flags proclaiming to the fleet a 75 percent first term reenlistment rate for her petty officers.

White Plains, known as the 'Orient Express,' also topped the 83 percent mark for the reenlistment rate for second term petty officers and 90 percent mark for career petty officers.

The final percentages were tallied after the reenlistment of three *Plainsmen* on the final day of fiscal year 78.

White Plains, the Navy's only forward deployed combat stores ship, operates from Yokosuka, Japan, under the command of Captain Robert S. Owens.

Have a Yen to Read?

Looking for something to read? From pamphlets on how to install and use tire chains to books on the American Revolution, the U.S. Government Printing Office probably can satisfy your reading desires.

With over 25,000 titles in stock, the Superintendent of Documents has grouped the publications into related subject bibliographies. They are listed in two *free* guides which are yours for the asking.

Domestic customers should ask for the "Consumers Guide to Federal Publications." Customers outside of the continental United States should ask for the "International Buying Guide to U.S. Government Publications."

For your free copy, write to Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Bearings

It Was in the Cards

USS *Tattnall* (DDG 19) recently pulled into the small seaport of Zeebrugge in Belgium and stepped into a surprise arranged by their Belgian Exchange Officer, First Lieutenant Sylveer De Beuker.

It began with a bus waiting on the pier to whisk the ship's basketball and soccer teams to prearranged matches against local teams. Along the way, *Tattnall* sailors were treated to a scenic tour of the Belgian countryside. The bus stopped—apparently for a rest break—in the small city of Turnhout.

But Turnhout, it seems, is also the hometown of De Beuker. That's when the fun began. Local residents gave the sailors a warm welcome and a tour of Turnhout's attractions. First stop was at the city's cultural center which included a library, auditorium, museum, pub (with free beer) and a serenading band dressed in traditional 18th century garb of the country.

Next, the group toured a museum which was once the largest playing card factory in Europe. That tour included a look at one of the largest manually operated printing presses still in existence. The factory, the first of its kind, is credited with developing the first playing card and was instrumental in spreading card games throughout the world.

After the tour, *Tattnall*'s basketball and soccer teams faced their respective local teams on the playing fields.

The U.S. Navy men, ahem, lost both matches. But facing a full evening of still more festivities, few seemed to care. That night, crewmen were treated to the new (a disco dance) and the old (a Belgian folk dance).

Thanks to Belgian Exchange Officer De Beuker and the people of Turnhout, the officers and men of *Tattnall* experienced a memorable port visit they'll not likely duplicate in the future.

Long-Distance Chess

Larry Rydel doesn't speak a foreign langauge, yet he communicates regularly with people from around the world. How? Through the internationally understood game of chess and, oh yes, a reliable postman.

Rydel, a Chief Hospital Corpsman assigned to the Presidio of Monterey's Medical Clinic, has been playing chess with foreign opponents for 16 years. But, instead of just using the conventional chessboard of 64 one-inch squares and 32 medieval pieces, Rydel relies on simple post cards and the world's postal systems to conduct his international battles of will and strategy.

Today he has 72 matches in progress with opponents from Japan, France, the Soviet Union, Canada, West Germany, East Germany, Rumania, Portugal, Bulgaria, Switzerland, Italy, Sweden, Denmark, Czechoslovakia, South Africa, Yugoslavia, Finland and England. In addition, he is engaged in 35 more games with fellow Americans from 25 states.

His opponents are amateurs and masters. One competitor is a professor of art at the University of Moscow. Another is a baron in West Germany. Closer to home, Rydel is playing an astronomer from the Smithsonian Institution; he also plays a prisoner at the Florida State Penitentiary.

Playing postal chess is as simple as sending a letter. Participants note their move on a standard post card using the English descriptive notation method. For example, P-K4 represents a pawn moving to a position three squares in front of the king.

"It's chess without the board," explains Rydel, although he adds that most postal players do use the standard chess set to better visualize the game situation.

The time required for a move in postal chess, like the length of the contest itself, varies with the intensity and experience of competitors. According to Rydel, some moves are immediate while others take hours of careful deliberation. His average game lasts between 15 and 18 months, although he's had a brief six-week encounter as well as a three-year marathon.

In addition to playing long distance, Rydel plays at the Monterey Chess Center. Last April, he was one of three local chess players to draw with Florin Cheorghiu, visiting grand master from Rumania.

The only bad part of playing postal chess is the price of stamps says Rydel. Fortunately, however, his monthly postage bill—about $25—is offset somewhat by a budding stamp collection. *—SSGT Randall Moore, USAF*

Bolstering Bolster

From "day one" in basic training, Navy people are taught to be team players. Even so, it's not often that an entire team is deserving of individual praise. Such was the case, however, on board the rescue and salvage ship USS *Bolster* (ARS 38) when all 15 sailors who took the recent Navywide advancement exams were promoted in a joint ceremony.

"The *Bolster's* 100 percent success rate shows that the ship not only has a good training program and good morale," said Commander James H. Ansley, Commodore of Service Squadron Five,"but also is indicative of a crew that cares for their shipmates."

CDR Ansley also said that when a man makes rate, it's the result of not only the man's effort, but also of the efforts of his shipmates who teach him along the way.

"When a man advances in rate," CDR Ansley said, "his responsibilities increase to the Navy, and to the shipmates who follow him—he has a responsilility to help and to teach his juniors so they may also advance."

Athens Marathon

BY PH1 JOHN R. LUCAS

There are a number of reasons why American sailors and Marines might "hit the beach" in Athens, Greece. But for the 83 who landed in Athens October 6, there was only one reason—"to run in the footsteps of Phidippides."

Phidippides was the Athenian warrior who, in 490 B.C., ran the 26.2 miles from the battlefields of Marathon to the Acropolis in Athens to tell the people of the great victory over the Persians.

Nearly 2,400 years later, the run was added to the first modern Olympics of 1896, thus planting the seed for marathons around the world.

Athens hosts two marathons yearly. The first, held each spring, is open only to world-class runners with qualifying times under 2 hours 30 minutes. The second, run in the fall, is called "the popular race" and is open to runners around the world.

More than 1,000 male and female runners of all ages come from all over the world to make this annual "popular race."

This year, U.S. Navy people and Marines who ran in the race represented several shore stations including Naples, Italy; Rota, Spain; Sigonella, Sicily and the United Kingdom. Sixth Fleet runners were from the USS *Albany*, flagship of Commander Sixth Fleet, and the aircraft carrier USS *Forrestal*.

Right: MI1 Joe Picou and RM3 Lory Wegmuller pace each other.
Below: (L to R): SN J. J. Copeland, ETR2 Kevin Setnes and LT Paul Nichols near the finish line.
(Photos by PHAN Scott Riecke)

The Naval Communication Station, Nea Makri, Greece, again provided all the logistical support for the military runners. Special Services Director Ed White (a former Oakland Raider) acted as liaison between the various commands sponsoring runners and the race committee.

Lieutenant Paul M. Nichols, 39, from the Naval Communication Station in Rota was the first military runner to cross the finish line. His time of 2:43 placed him 7th overall. After finishing, Nichols said, "The older I get, the faster I get."

Electronics Technician Second Class Kevin J. Setnes, 24, of the Naval Comminication Area Master Station Mediterranean in Naples was the second military runner to finish.

Captain T.C. Andersen, 53, Supply Officer at the Naval Support Activity Naples said, "It was a long, hard run. I'm very pleased just to have finished the race."

Radioman Third Class Lory J. Wegmueller, 21, of Headquarters Allied Forces Southern Europe in Naples was the only enlisted woman to run. She had a time of 4:12:28. She said, "I ran the race non-stop this year and beat a couple of people who have beaten me in the past."

Captain Robert L. Smidt, 47, of Fleet Air Mediterranean in Naples summed up his feelings, "I'm glad I made it all the way. But, most of all, I enjoyed running and meeting with all the different nationalities as we went along."

Perhaps the thoughts of ET2 Setnes encompass the feelings of most marathon runners. After running 20 miles he said, "I've told myself the same thing at the same point in every marathon...this will be my last one." But the pain and agony are soon forgotten after the race. There always seems to be the faint sound of footsteps and the magic of Athens to lure the runners back for one more effort.

Last of the All-Navy Sailing Champions

STORY AND PHOTOS
BY JO1(SS) PETE SUNDBERG

The 18 sailors came to compete in a sport steeped in tradition. A sport that, with strange terms and concepts, seems mystical and even romantic; it's called yacht racing.

Six crews, three from each coast, pitted their skills against each other in the last All-Navy Sailing Championship. Hosted in September by the Coast Guard Academy at New London, Conn., the three-man crews earned their positions earlier in the year by winning sailing regattas in their respective areas.

The tournament began with a crews' meeting. Lieutenant Scott Smith, race committee chairman, briefed them on rules—conducted under the United States Yacht Racing Union—schedules, and course signals. Skippers then drew lots for their boats—30-foot *Shields*-class—gathered up their ditty bags, and got under way for a triangular-shaped Olympic course off Fisher's Island in Long Island Sound.

An air horn sounded and a white flag went up from the race committee boat warning crews of the impending start. Then, the crews seemed to become confused as they sailed off in different directions—all *away* from the starting line. To the casual observer, the race took on an air of mass confusion; an experienced sailor, however, knew it was just a matter of tactics. The jockeying for good positions behind the starting line is actually when many a race is either won or lost.

Five minutes after the white flag was raised, another warning signal was sounded and a blue flag hoisted. Finally, another blast was sounded, a red flag appeared—the race began.

Unlike other sports, sailing is a quiet one—minus the hawking of vendors and the noise of spectators. There is only the gentle snapping of wind-filled sails and urgent orders from skippers to crews. Gracefulness inherent in sailing tends to belie the underlying excitement.

As the craft silently skim through the water, the skippers and crews are responsible for more than just steering their craft and tacking. There are many mental exercises taking place. Each crew member must know the rules of the road as they relate to the course being run; they must always be aware of the time elapsed from the start of the three-hour race; and they have to recognize not just the wind but the type of wind blowing and minute changes in wind direction. They also must be constantly aware of the set and speed of currents along the course.

Sailing

Six races were conducted during the three-day championship, and, although the craft were evenly matched, the crews traded boats after every race to ensure fairness to all. Changes in boats didn't seem to affect the outcome—Captain Chris Withers, a national yacht-racing contender from Newport, R.I., and his crew won five of the six races to take the championship. The results were:

Winners: CAPT Chris Withers (skipper), Naval War College, Newport, R.I.; LT Stephen Parfet, OCS, Newport, R.I.; LT Tom Fowler, SWOSCOM, Newport, R.I.

Second: LTJG Tom Atkinson (skipper); QM3 Joseph Smith and MMFA Steve Morse. All crewmen are attached to USS *Knox* (FF 1052), homeported in Yokosuka, Japan.

Third: QM2 Rick Mongule (skipper), USCG cutter *Blackhawk* at San Francisco; QM3 Ted Kellog, USCG, Pt. Ledge, San Francisco; QM3 Steve Hamilton, USCG Recruiting Station, Alameda, Calif.

Fourth: LT Michael Waters (skipper); OS3 Dan Maddox and ENS Brent McGee. All are attached to USS *Preble* (DDG 46) out of Pearl Harbor, Hawaii.

Fifth: TDC Robert Ober (skipper), Naval Station, Annapolis; NES Rudy Costanzo, USNA, Annapolis, and DP1 Fred Imhoff, Naval Security Group Headquarters, Washington, D.C.

Sixth: PHC Keith Reynolds (skipper), PH3 Robert Hamilton and PHAN Dennis Driscoll. All are attached to Fleet Audio Visual Command, NAS, Norfolk. ⚓

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MARGIE VOSE

A Long, Hard

Struggle Back

BY PH2 DAVID LONGSTREATH

In the early morning hours of April 1, 1978, Margie Vose fell asleep at the wheel of her subcompact automobile; it veered off the four-lane highway, grazed a tree and ended up a total wreck. Suffering massive head injuries and broken bones, Margie Vose was rushed to Norfolk General Hospital.

Margie's parents remember vividly the news brought to them by Norfolk General doctors: "If your daughter lives, she probably will be severely handicapped."

The 18-year-old daughter of retired Navy Captain William F. Vose, Margie Vose was later transferred to the intensive care unit of the Naval Regional Medical Center, Portsmouth, Va. It was 10 weeks before the physical therapists were able to start Margie's rehabilitation process.

Staffed full-time by five, college trained physical therapists and eight Navy-trained physical therapy technicians, the Physical Therapy Branch is designed to treat any condition involving rehabilitation of the body.

"We treat patients suffering burns, broken bones, strains, sprains, arthritis and various other medical-surgical problems," says Navy Captain J.M. Beckwith, head of the branch. "Many of our patients have been involved in motorcycle or automobile accidents similar to Margie's."

In Margie's case, however, it was more than rehabilitating broken bones. According to doctors at NRMC, the accident had resulted in multiple injuries and brain stem damage. Although alert at all times, Margie had lost the ability to control or move most of her limbs. Basically, she would have to learn how to move again.

In a quiet moment, Margie and Navy physical therapist LTJG M.T. Tamburello talk over the day's progress.

The unit's first contact with Margie came through Hospital Corpsman Third Class Robyn Collum, a physical therapy technician.

"When I first met Margie," HM3 Collum said, "she was still under intensive care. A tracheotomy (an opening in the throat to aid in breathing) had been performed and she was on a respirator. Because she couldn't be moved, therapy at first was very simple—she would grip my hand.

"After reading her medical history, I had my doubts, but Margie has a strong will."

When a patient has experienced a massive trauma, usually the result of a serious accident, the recovery usually is long and often incomplete. Many are faced with the possibility of a permanent handicap.

According to NRMC physical therapist Lieutenant (junior grade) Michael Tamburello, many patients suffer severe depression and frustration once they begin therapy. This was true in Margie's case but with a difference.

"She has an exceptional determination to return to a normal life," Tamburello said.

"We provide the therapeutic exercises to stimulate and strengthen muscles but the key element in treating any patient is motivation. Margie knew it was going to be a long, hard struggle back to a normal life. She accepted it. Every time she reported for therapy, she was prepared to work," Tamburello added.

CAPT Beckwith noted that physical therapy has a way of strengthening patients mentally as well.

"Many gain confidence by seeing other patients in similar therapy. They judge their progress against others and often realize their problem is not as bad as it seems."

There were times when Margie could not complete an exercise. Still, she never gave up.

The purpose of physical therapy is to help a patient become self-sufficient once again. "Most people take for granted the little things, such as being able to dress oneself. For Margie, just learning again how to roll over by herself was a great accomplishment. It meant she could ease pressure on different parts of her body without calling a nurse or corpsman," Collum said.

Reflecting, Collum said, "When Margie first began regular visits to physical therapy, she was incapable of even the simplist tasks. She had been told by doctors she would probably never walk again.

"Margie didn't accept this and set out to prove everyone wrong. Her last day in therapy here she walked a few steps with the aid of a leg brace and the parallel bars. She was so happy she cried."

Two months after beginning therapy at NRMC Portsmouth, Margie Vose was wheeled into the physical therapy unit to say goodbye to those who had worked closely with her. The following

day she was transferred to a northern Virginia clinic for further treatment.

On her way out Margie made a promise to the PT staff, "I'll be back, only next time I'll walk in." ⚓

Editor's note—After her discharge from the Naval Regional Medical Center on July 25, Margie Vose was transferred to a state operated physical therapy clinic in Fishersville, Va. She has regained use of both hands and can use a wheel chair.

According to her father, Margie is making excellent progress and is well on her way to recovery.

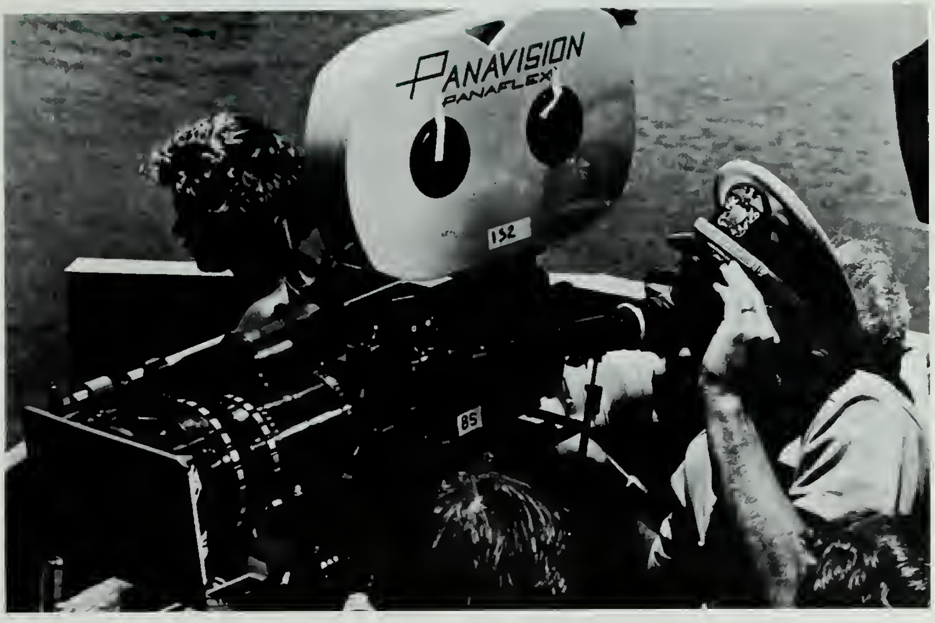
Above: Through the long and often painful rehabilitation process, Margie Vose's determination shines through.

Left: Margie learns to walk again with help from LTJG M.T. Tamburello and HM3 Robyn Collum.

“PEARL”

STORY BY JO2 B. PEASE
PHOTOS BY JO2 J. BRYANT

Pearl Harbor has been attacked again—this time with the help of the U.S. Navy. Warner Brothers' cameras recorded the action as part of a “made for television” movie entitled “Pearl.” A fictionalized story that centers on what happened to seven people on Dec. 7, 1941, “Pearl” features stars Angie Dickinson, Robert Wagner, Dennis Weaver, LeslieAnn Warren and Greg Henry.



During the filming of the attack scenes, hectic Hollywood interrupted daily routine aboard the frigate USS *Badger* (FF 1071) while crew members got into the act by working as extras. Fame has its price, though. To get that clean-shaven, scrubbed look of the 1941 sailor, beards, mustaches, and the long locks of the 1970s fell before the barber's clippers.

In addition to the 40 extras (who were in a leave status during the filming), the Navy also provided ferry services to Ford Island for film crews and for a ship to attack. The target ship, ex-USS *Vance* (DER 387), was towed from Pearl Harbor's Inactive Ship Facility to the location site and was given a fresh coat of paint on her “camera” side. It was ironic that *Vance*, a destroyer escort commissioned in 1943, was ending her Navy career in a re-enactment of the battle that provided the impetus for her construction.

Several years ago the award-winning movie “Tora! Tora! Tora!” was filmed at Pearl Harbor. Civilian employee Chuck Leahey, 14th Naval District Special Services director, has survived all three “attacks”—the real one, “Tora!” and now “Pearl.” He was a fireman aboard the destroyer tender USS *Dobbin* (AD 3) in 1941. Later, from the point of view of having been there, he enjoyed “Tora! Tora! Tora!” and now looks forward to seeing “Pearl” on TV. “Nothing could match the intensity of the original,” he said, “but I'm not too crazy about the idea of a sequel.” ⚓

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Navy Rights & Benefits

The benefits inherent in a Navy career are not always evident to those who look only at base pay. To appreciate the full value of Navy life, a person must consider the entire range of many benefits—medical care, aid for education, and commissary privileges, to name a few. All must be taken into account.

To keep Navy members informed, All Hands *will discuss these and other benefits in a lengthy series of articles beginning with this first one on survivor benefits.*

The explanation of the Survivor Benefit Plan is followed by a table briefly outlining the range of survivor benefits established for active-duty members and retirees. Since space limitations restrict more detailed descriptions, it is important that the member directly contact the sources listed for more information.

Also included is a form which you can use in planning your family's future, estimating total survivor benefits, and for maintaining an account of where you and your family stand financially.

Survivor Benefits Plan

Sometimes, the hardest things to talk about in life are also the most important. Take the subject of death. Most of us would just as soon jaywalk if it meant getting out of a discussion on *that* subject.

But when a sailor retires from the Navy, he may be snug in the knowledge a monthly check will arrive in the mails like clockwork *for the rest of his life.* It sort of takes the edge off though when the retiree realizes the checks and his life stop almost simultaneously. What about his family? How will the bills get paid? What about the children's education? An avalanche of questions pour forth with the realization that one's family may be financially secure now, but what about later?

For many military retirees, the answers to these and other money questions can be found—at least in part—in the Survivor Benefit Plan for the uniformed services.

Basically, the Survivor Benefit Plan (SBP) provides an income to the deceased retiree's beneficiaries. This monthly income is equal to 55 percent of the full amount of the member's retired pay or 55 percent of any selected amount of retired pay over $300 per month. In addition, this monthly amount is periodically adjusted for cost-of-living increases.

So if a chief petty officer, for example, receives $700 a month in retirement/retainer pay, the SBP monthly payment to his beneficiaries after his death would be $385. (Base Amount X 55 percent = annuity).

Suppose that same chief petty officer, before his retirement with pay, elected a lesser amount than maximum coverage, say $300 (the minimum amount which may be designated under SBP). Then the SBP monthly payment to his beneficiaries after his death would be $165.

Keep in mind the above figures represent gross amounts. That is, annuities paid under SBP are subject to federal income taxes.

Military retirees will automatically be enrolled in the Survivor Benefit Plan at the maximum coverage level at the time of their retirement or transfer to the Fleet Reserve, unless they request coverage less than the maximum, or decline participation in the program.

Under SBP, four types of coverage are available at varying costs: spouse only coverage; spouse and children coverage; children only coverage; and insurable interest coverage.

Spouse Only Coverage

As its name says, this is coverage paid to the retiree's spouse only. It is important to keep in mind that an election to cover spouse only, once effective, is irrevocable, although the cost of coverage will not take place in any month when there is not an eligible spouse beneficiary.

Also, if coverage for spouse is declined at time of retirement, coverage for that spouse, or any subsequent spouse, cannot be provided at any later time.

If there is no eligible spouse at time of retirement, coverage for a spouse acquired after retirement may be provided. Such an election must be submitted within one year of the marriage and the spouse must be married to the retired military member for a minimum of one year immediately before the retiree's death (or if a surviving child is born of the marriage) in order to be an eligible recipient of SBP annuities.

The cost of this spouse only coverage is 2½ percent of the first $300 of the base amount plus 10 percent of any amount over $300. See the accompanying chart for more detail.

So far, SPB is a pretty simple plan to understand. You pay money in return for a guaranteed income for designated beneficiaries after your death. However, there are a couple of things that tend to complicate the picture just a bit (but not lessen the coverage paid to those beneficiaries). The main item to understand is a notion called, Dependency and Indemnity Compensation/Social Security offset.

DIC/Social Security Offset

Surviving spouses may be eligible for Dependency and Indemnity Compensation (DIC) payments from the Veterans Administration and/or Social Security Benefits after the retiree dies. These benefits may offset or reduce the amount of SBP payments being made to the spouse under varying circumstances. First, we look at how DIC works in relation to SBP:

Suppose Senior Chief Jones was wounded during the war in Vietnam. After retirement, Senior Chief Jones (who has enrolled in the Survivor Benefit Plan) dies as a result of complications developing from that wound. Since his was a service-connected death, his widow, any unmarried children under age 18 (as well as certain handicapped children), children between the ages of 18 and 23 if attending a VA approved school, and certain dependent parents are eligible for Veterans Administration DIC.

DIC is a monthly benefit based on the member's grade or rate. It is exempt from federal income taxation and may be received simultaneously with full Social Security benefits.

So Senior Chief Jones' widow applies for and is granted DIC in the amount of $200 (an arbitrary figure). This $200 is deducted from the SBP benefits she receives each month so there is no change in her monthly annuity (although that tax-free $200 will result in less overall tax on her annuity). That's DIC offset.

(For more information about Veterans Administration Dependency and Indemnity Compensation as well as facts on other VA programs, see the pamphlet *Federal Benefits for Veterans and Dependents* available from the Veterans Administration.)

There are times also when SBP annuities will be reduced by that portion of Social Security benefits that came out of the retiree's active duty earnings. The offset applies only when the widow(er) has one dependent child or, if there are no dependent children, when the widow(er) is 62 years of age or older. In all cases, however, the combined payments from SBP and Social Security are guaranteed to equal or exceed 55 percent of the retiree's retired pay or the lesser designated base amount.

As can be seen from our discussion of DIC/Social Security offset, the word "offset" may be a bit misleading in that the total amount of money the spouse receives each month is never reduced, and often increased, as a result of DIC or Social Security benefits. It's just that the money may come from a different federal source under different circumstances.

Spouse and Children Coverage

With this type of SBP coverage, the monthly annuity is paid to the surviving spouse. If the spouse is not eligible (due to death or remarriage) the annuity is paid to eligible dependent children in equal shares.

The cost of this coverage is based upon the cost of "Spouse Only" coverage plus an actuarial charge based on the age of retiree, spouse and youngest child.

Under this coverage, no DIC or Social Security offset will be made when SBP payments are made only to children.

Children Only Coverage

The cost of this type of coverage is an actuarial charge based on the age of the retiree and the age of the youngest child. Since actuarial charges fluctuate, they will be computed by the Navy Finance Center before an SBP coverage is elected so that the precise cost will be known.

Insurable Interest Coverage

The final type of SBP coverage, Insurable Interest Coverage, may be provided to guarantee monthly SBP benefits to any person who has a reasonable and lawful financial expectation from the continued life of the retiree. This is legal talk for someone, other than spouse or children, who is financially dependent on the retiree. It may be a brother, sister, parent or nondependent child. If the insurable interest person is other than those (such as a business partner) proof of financial benefit is required by the Navy Finance Center.

If there is no spouse or eligible children at the time of retirement, coverage for a person with an insurable interest may be elected.

The cost of this coverage is figured as follows: 10 percent of full retired pay plus five percent of full retired pay for each five years the designated beneficiary is younger than the retiree, the total cost of such coverage not to exceed 40 percent of full retired pay. (See the accompanying example.)

Under normal circumstances, the cost of coverage under SBP increases over the range of the four types of coverage provided. Thus, "Spouse Only" coverage is cheapest while "Insurable

Survivor Benefit Plan—Spouse Only—Monthly Amounts

Base Amount of Retired Pay	Monthly Payment For Surviving Spouse	Monthly Cost To Retiree*	Net Balance To Retiree***
$100.00**	$ 55.00	$ 2.50	$ 97.50
200.00**	110.00	5.00	195.00
300.00	165.00	7.50	292.50
350.00	192.50	12.50	337.50
400.00	220.00	17.50	382.50
450.00	247.50	22.50	427.50
500.00	275.00	27.50	472.50
550.00	302.50	32.50	517.50
600.00	330.00	37.50	562.50
650.00	357.50	42.50	607.50
700.00	385.00	47.50	652.50
750.00	412.50	52.50	697.50
800.00	440.00	57.50	742.50
850.00	467.50	62.50	787.50
900.00	495.00	67.50	832.50
950.00	522.50	72.50	877.50
1000.00	550.00	77.50	922.50
1100.00	605.00	87.50	1012.50
1200.00	660.00	97.50	1102.50
1300.00	715.00	107.50	1192.50
1400.00	770.00	117.50	1282.50
1500.00	825.00	127.50	1372.50
1600.00	880.00	137.50	1462.50
1700.00	935.00	147.50	1552.50
1800.00	990.00	157.50	1642.50

*Withheld from retired pay. Monthly premiums are discontinued if marriage is terminated by death, divorce or annulment.

**Applicable only if full retired pay is less than $300 per month.

***Of Base Amount

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Computing Insurable Interest Coverage

Suppose you are 50 years old when you retire from the Navy and you wish to provide Insurable Interest Coverage under the Survivor Benefit Plan to your 30-year-old married daughter. Your monthly gross retired pay is $750. The cost of such coverage is 10 percent of full retired pay plus 5 percent of full retired pay for each full five years the designated beneficiary is younger than the retiree (the total cost will not exceed 40 percent of retired pay).

Thus: Daughter is 20 years younger (20 ÷ 5 = 4 x 5% = 20%)

10% + 20% = 30%

$750 x .30 = $225 (Cost of coverage)

The annuity equals 55 percent of the reduced retired pay (gross pay less cost of coverage). Thus: $750 – $225 = $525.

The annuity equals $525 x .55 = $288.75.

Interest" coverage may be the most expensive. That's only one reason why the prospective retiree must understand each type of coverage available and its cost so that he may elect the plan that provides best for his family at the lowest possible cost to them.

In addition, there are other provisions of SBP that apply in special or unusual circumstances for which the member must be advised. Complete details are available from your command's career counselor. Other sources of retirement information, including your SBP coverage, can be found in the following publications.

- *Navy Guide for Retired Personnel and Their Families,* NavPers 15891 series. This booklet provides detailed information on retired rights, benefits and privileges. These should be available to the member during pre-retirement processing.

- *The Retired Naval Personnel Newsletter* is published quarterly by the Bureau of Naval Personnel, provides updated information on retirement and serves as an official line of communication between the Navy and the retired community. Members who do not receive an issue within a reasonable time after retirement (6 months) should contact the Commanding Officer, Naval Reserve Personnel Center, New Orleans, LA 70149, and request that their name be placed on the mailing list.

- *Survivor Benefit Plan for retired members of the uniformed services* will be provided to each prospective retiree during preretirement processing.

- *Retired Military Almanac* is an unofficial (commercial) digest of vital and factual information on military retirement rights and benefits. Mail all orders to Uniformed Services Almanac, Dept. M, P.O. Box 76, Washington, D.C. 20044.

A quick look at supplemental benefits

In addition to the survivor's benefits listed in the table on the following pages, there are other benefits for surviving dependents of deceased active duty members and retirees. Among these are:

- *Civil Service Employment Preference.* Certain Civil Service preference benefits are granted to unremarried widows in connection with examinations, ratings, appointment and reinstatements if they wish to apply for a Civil Service positon. Call or write any civil service employment office for details.

- *Fraternal Organization Benefits.* Check with the nearest affiliate of any fraternal or professional organization to which the deceased belonged to learn of any insurance, burial, or other benefits which may be payable.

- *GI Bill Loans.* Unremarried widow(er)s of deceased military personnel may be eligible for GI Bill home loans when death is due to service-connected causes. Contact the Veterans Administration for further details.

- *Mortgage Insurance.* The mortgage insurance provided free as part of GI Bill loans and FHA in-service loans does not pay off the mortgage upon the death of the homeowner. Those guarantees apply solely to the private lender who made the home loan; the obligation to repay the loan falls to the deceased's estate and spouse (property held as tenants by entireties). Only if the spouse defaults may the government pay the lender to the extent of the guarantee—but the government is then obligated to recover its loss from the family. In the case of FHA mortgage insurance, the goverment will continue to pay the insurance premium for two years after the death of a member, or until the widow(er) remarries or sells the property.

- *Officers and Enlisted Messes.* If facilities permit, commanding officers are authorized to extend the privileges of Commissioned Officers' messes Open, Senior Chief Petty Officers' messes Open, Chief Petty Officers' messes Open and First and Second Class Petty Officers' messes Open to unremarried widow(er)s or retired members of appropriate grades or rates. Such authorization may be extended to their dependents. Contact the appropriate naval activity for more information.

- *Service Academy Appointments.* Each year a limited number of appointments to the major service academies are reserved for the sons and daughters of military members who died of war injuries. Inquires should be sent directed to: The Registrar, United States Military Academy, West Point, New York 10996; Director of Admisions United States Air Force Academy, Colorado 80840; or the Office of Candidate Guidance, U.S. Naval Academy, Annapolis, Maryland 21402.

- *State Benefits.* Many states provide benefits for survivors of veterans such as educational assistance, civil service preference, tax and license fee exemptions, employment assistance and bonuses. Most of the states maintain veterans' agencies (usually titled State Veterans Commissions) which supervise the veterans, and survivors' benefits. The member's survivors should contact the veterns' agency in the state in which they intend to reside or the state from which the retired member last claimed residence. Any nationally recognized veterans organization will also assist in providing information about survivor benefits.

- *Tax Relief.* The income of a member who dies of wounds, disease or injury sustained in a combat zone is exempt from federal income taxation for the year in which the death occurred. Any tax liability outstanding against the member at the time of death will be canceled or reduced. Refunds can be made if tax on such income has already been paid. The federal estate tax is not applicable in the settlement of estates of such combat veterans.

Table of survivor benefits fo

BENEFIT	DESCRIPTION
ARREARS OF PAY	Unpaid pay and allowances due member at time of death.
DEATH GRATUITY	Designed to help defray immediate expenses, the death gratuity is six times the active duty member's monthly basic pay to a maximum $3,000 payable to beneficiaries usually within 24 hours of death.
BURIAL EXPENSE ALLOWANCE	
Social Security	$255 lump-sum death payment to widow(er) of Social Security "covered" member.
Veterans Administration	$300 basic burial allowance plus $150 plot/interment allowance if burial is not in a national cemetery. Service-connected deaths may receive up to $1,100.
EDUCATIONAL BENEFITS	
Navy Scholarships	Various scholarships are available from Navy-affiliated organizations.
Navy Relief Society Educational Fund	Educational assistance loans and grants are available to survivors of Navy members.
Veterans Administration	Widow(er)s and children of members who died of service-connected causes may be eligible for up to 45 months of VA educational assistance. Educational loans are also available for those needing educational financial assistance.
UNIFORMED SERVICES ID & PRIVILEGE CARD (DD FORM 1173)	Unremarried widow(er)s, dependent children to age 21 (23 if attending full-time institution of higher learning) & parents/parents-in-law determined to be dependent are entitled to an ID card and appropriate privileges if deceased member had retired from military service.
EXCHANGE, COMMISSARY & THEATER PRIVILEGES	Sponsorship passes to unremarried widow(er) of retired military member until such time as widow(er) remarries and becomes the dependent of another person. Surviving children are entitled to exchange & theater privileges if dependent on widow(er) for over ½ of their support to age 21 (23 if attending full-time institution of higher learning).
HEADSTONES & GRAVE MARKERS	When burial is in a national cemetery, a headstone or grave marker is provided without cost or application. Markers for private cemeteries will be shipped free, but applicant is responsible for transportation to the private cemetery & cost of placement at the grave.
HOUSEHOLD GOODS STORAGE/MOVEMENT & RELOCATION OF DEPENDENTS	Dependents who were eligible to relocate at government expense & for household goods movement before the member's death are permitted one year to relocate & move household goods to any selected location at government expense & storage in transit up to six months.
LIFE INSURANCE	
NSLI/USGLI	USGLI was issued in 1919 and discontinued in 1951. NSLI took up where USGLI left off but has also been discontinued.
SGLI	Automatic coverage ($20,000) unless member elects lower amount or no coverage. A member is covered under this active duty SGLI insurance for 120 days following discharge (non-disability death) or for one year in the case of service-connected death.
VGLI	Veterans Group Life Insurance is available—within 5 years of discharge—for those desiring to convert their SGLI coverage.
Commercial Insurance	Depends upon the amounts and type of life insurance purchased by the member.
MEDICAL CARE	Dependents of retirees who are eligible for medical care under the Uniformed Services Health Benefit Program or for the Civilian Health & Medical Program of the Uniformed Services (CHAMPUS) remain eligible for such care after the member's death.
NAVY MUTUAL AID ASSOCIATION	A membership organization which provides death benefits currently of $18,000; assists beneficiaries in filing claims for government benefits & provides follow-up service as needed.
NAVY RELIEF SOCIETY ASSISTANCE	Provides temporary financial assistance (either a loan, gratuity, or combination of the two) to dependents of deceased Navy members plus counseling and referral services and other assistance.
RETIRED SERVICEMAN'S FAMILY PROTECTION PLAN (RSFPP)	Provides annuities to beneficiaries of deceased military members who participated in the program and retired before September 21, 1972.
SURVIVOR BENEFIT PLAN (SBP)	Provides annuities to beneficiaries of deceased military members who participated in the program and retired after September 21, 1972.
SOCIAL SECURITY BENEFITS (SSB)	SSB payments are separate from & in addition to any RSFPP or monthly VA compensation (but not SBP payments). SSB provides—depending upon eligibility—(a) monthly benefits to surviving widow(er) & dependent children, (b) MEDICARE coverage, and, (c) lump sum death benefits (see Burial Expense Allowance entry).
VETERANS ADMINISTRATION DEPENDENCY AND INDEMNITY COMPENSATION (DIC)	Payable for service-connected death only. DIC is a monthly benefit determined on the basis of member's grade or rate and authorized for widow(er)s, unmarried children under age 18 (as well as certain helpless children), children 18-23 if attending a VA-approved school and certain dependent parents of members who died in service or who died following discharge from a service-connected disability.
VETERANS SURVIVORS PENSION	Payable to widow(er) & children of a member whose death was not service connected providing their income does not exceed certain limitations and their net worth is within reasonable limits as determined by the VA.

ctive-duty members and retirees

WHERE TO APPLY	HOW TO APPLY
Commanding Officer, Navy Finance Center. Anthony J. Celebrezze Federal Bldg., Cleveland, Ohio 44199.	Submit a Claim for Unpaid Compensation of Deceased Members of the Uniformed Services (SF-1174).
Payment of local disbursing office is automatic upon notification of death and with Navy Finance Center approval.	The local Navy disbursing office will provide assistance and information on death gratuity payments.
Your local office of the Social Security Administration.	Apply to the local SSA office within two years of member's death.
Regional office of the Veterans Administration. (Each state has at least one VA regional office.)	Application must be made within two years of member's death on VA Form 21-530 by mortician, survivor, or person paying burial expenses.
Chief of Naval Personnel (Pers 7311), Navy Dept., Washington, D.C. 20370.	BuPers will supply information on type and number of scholarships available.
Headquarters, Navy Relief Society, 801 N. Randolph St., Room 1228, Arlington, Va. 22203.	Apply through the Navy Relief Society.
Regional office of the Veterans Administration.	Submit VA Form 22-5490, Application for Educational Assistance, or VA Form 22-5490W, Application for Program of Education or Training by a Spouse, Widow or Widower, or VA Form 87-25, Application for Educational Loan.
For determination of dependency of parent or parent-in-law: Navy Family Allowance Activity, Cleveland, Ohio 44199. For renewal or replacement of ID cards: the nearest Naval Activity authorized to issue ID cards or the Chief of Naval Personnel, (Pers 7312), Navy Dept., Washington, D.C. 20370.	The following documents must accompany application: a copy of retired member's orders, death certificate, marriage or birth certificate (as appropriate), interlocutory or final decree of divorce (if appropriate) and letter from Social Security Administration certifying you are not entitled to Social Security Hospital Insurance (Part A) (applicable only to widow(er)s 65 or over).
See above information on Uniformed Services Identification & Privilege Card (DD 1173).	See above information on Uniformed Services Identification & Privilege Card (DD 1173).
Director, Headstone Service (42A), Veterans Administration Central Office, 810 Vermont Ave., N.W., Washington, D.C. 20420.	Submit VA Form 40-1330 available from any regional Veterans Administration office.
The installation Transporation Officer (ITO) at your local military activity will provide HHG assistance. The local military activity will also assist in the transporation of dependents.	The ITO will require copies of orders in addition to other selected forms. Check with the ITO for specific information.
Veterans Administration Center, P.O. Box 8079, Philadelphia, Pa. 19101 (if residing East of the Mississippi River) or Veterans Administration Center, Federal Bldg., Fort Snelling, St. Paul, Minn. 55111.	In any communication with VA about life insurance, include member's policy number, full name, date of birth and service or social security number, civil death certificate, VA claim file number and insurance policy number.
Chief of Naval Personnel (Pers 732), Navy Dept., Washington, D.C. 20370 or Office of Serviceman's Group Life Insurance, 212 Washington St., Newark, N.J. 07102.	The beneficiary will be contacted and furnished VA Form 29-8283 by Pers 732 upon receipt of official death notice. VA form 29-8283 and a certified copy of the death certificate are forwarded by claimant to the SGLI office for payment.
Office of Serviceman's Group Life Insurance, 212 Washington St., Newark, N.J. 07102.	Submit VA Form 29-8283 (available from regional VA office) and certified copy of death certificate to SGLI.
Local office of the insurance company with which the member is insured.	Consult your commercial insurance agent for specific application information.
Since changes may occur because of local service capabilities, consult your local Navy activity for entitlement information as well as for information on CHAMPUS.	CHAMPUS guidelines and medical care information are available from the Chief of Naval Personnel (Pers 731), Navy Dept., Washington, D.C. 20370.
Navy Mutual Aid Association, Navy Dept., Washington, D.C. 20370.	Further information is available from the Navy Mutual Aid Association.
Headquarters, Navy Relief Society, 801 N. Randolph St., Room 1228, Arlington, Va. 22203.	You may apply (a) in person at a Navy Relief Society auxiliary, (b) by call or telegram to their headquarters or, (c) through the local chapter of the American Red Cross in an emergency.
Commanding Officer, Navy Finance Center, (Code XM), Anthony J. Celebrezze Federal Bldg., Cleveland, Ohio 44199.	Submit application Form DD-768 to Navy Finance Center to receive annuties.
Commanding Officer, Navy Finance Center, (Code 303), Anthony J. Celebrezze Federal Bldg., Cleveland, Ohio 44199.	Submit NavCompt Form 2269(7-78) to Navy Finance Center to receive annuities.
Contact local office of the Social Security Administration immediately following member's death because claims may not be honored after an extended lapse of time.	Assistance in making application will be provided by the local office of the Social Security Administration.
Your local VA regional office.	Submit application on VA Form 21-534 available from any VA regional office.
Your local VA regional office.	Submit application on VA Form 21-534 available from any VA regional office.

Financial planning for your survivors

What financial shape would your family be in if you died tomorrow? Suppose you got hit by a car on the way home from the ship. After the trauma of your death and funeral were past, would your family at least find comfort in the fact you'd left them financially secure? Or would your death mark only the beginning of their troubles?

The following form may help you answer these questions. Referring to the explanation of rights and benefits in the accompanying table of benefits, you can get a working idea of the amount and types of assistance your family would receive upon your death. This amount, plus your personal assets, will give you an idea of the resources your family may draw upon after you're gone.

How much they will have to draw and when can be figured in the part on Personal Obligations. Subtracting this amount from your total worth will not only tell if you will leave a financially secure family behind when you die, but may also show where and what types of additional financial security you may want.

SURVIVOR BENEFIT	IMMEDIATE OR ONE-TIME PAYMENT	MONTHLY PAYMENT
Arrears of Pay		n/a
Death Gratuity		n/a
Social Security Burial Expense Allowance	$255	n/a
Veterans Administration Burial Expense Allowance	$300 basic allowance + $150 plot allowance[1]	n/a
Life Insurance: NSLI/USGLI[2]		
Life Insurance: SGLI[2]		
Life Insurance: VGLI[2]		
Commercial Life Insurance[2]		
Navy Mutual Aid Association[2]		
Retired Serviceman's Family Protection Plan[3]	n/a	
Survivor Benefit Plan[4]	n/a	
Social Security Benefits	n/a	
Veterans Administration Dependency & Indemnity Compensation[5]	n/a	
Veterans Survivors Pension	n/a	
TOTAL BENEFITS		

NOTES:

[1] Service-connected death may receive up to $1,100.

[2] Amount and method of payment (one-time payment or monthly) dependent upon the amount and type of coverage elected by member.

[3] Applicable only to those members who retired prior to 21 September 1972 and elected this coverage.

[4] Applicable only to those members who retired or became eligible for retirement after 21 September 1972 and elected this coverage.

[5] Monthly annuity dependent upon member's service-connected disability, grade or rate.

	IMMEDIATE OR ONE-TIME PAYMENT	MONTHLY PAYMENT
PERSONAL ASSETS		
Savings[1]		
Stocks/Bonds/Investments[1]		
Personal Property (house, car, boat & all high-value items)[2]		
All other assets/income		
TOTAL ASSETS		
PERSONAL OBLIGATIONS		
Rent/Mortgage[3]		
Utilities (gas, electricity, water, sewerage, telephone, etc.)	n/a	
Food & Clothing	n/a	
Transportation (car expenses, bus fare, etc.)	n/a	
Credit cards/time payments[4]		
Miscellaneous expenses		
TOTAL OBLIGATIONS		

NOTES:

[1] You may either figure the total amount available as a one-time payment or compute the interest/dividends you earn each month as a monthly payment.

[2] Immediate cash would be available from the sale of high-value items. You may also receive monthly rental fees from a home or other appropriate items.

[3] Certain types of mortgage insurance provide for payment of the remaining amount due on homes upon the death of the member. This would represent a single one-time payment. Other types of mortgage insurance guarantee the amount of the mortgage but do not release surviving members of their responsibility for repaying the mortgage upon member's death.

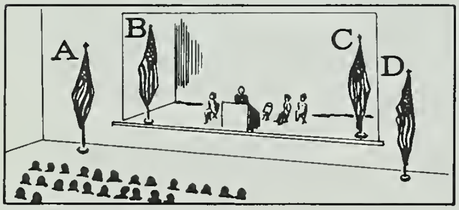
[4] Many credit agreements provide for a monthly interest charge with no penalty for early payment. Other credit agreements may include a set finance charge—for which no credit is given for early payment—and/or an early payment penalty fee.

	IMMEDIATE OR ONE-TIME PAYMENT	MONTHLY PAYMENT
TOTAL SURVIVOR BENEFITS:		
plus		
TOTAL PERSONAL ASSETS:		
equals		
TOTAL WORTH		
minus		
TOTAL PERSONAL OBLIGATIONS		
equals		
FAMILY SECURITY OR INSECURITY AFTER THE BREADWINNER DIES		

Mail Buoy

Flag Etiquette

SIR: I disagree with the answer given in picture No. 1 of the July 1978 Stern Shots. I have been taught that when the flag is on the dais or platform, it is placed to the speaker's right (answer B). When it is on the floor of the auditorium, it is placed lto the audience's right (answer D). —Del H. Sass



- You were right—until July 7, 1976—when Public Law 93-344, amended the U.S. Code pertaining to patroitic customs. Now, subsection (k) of Section 175 of the amended code, reads:

> "(k) When used on a speaker's platform, the flag, if displayed flat, should be displayed above and behind the speaker. When displayed from a staff in a church or public auditorium, the flag of the United States of America should hold the position of superior prominence, in advance of the audience, and in the position of honor at the clergyman's or speaker's right as he faces the audience. Any other flag so displayed should be placed on the left of the clergyman or speaker or to the right of the audience."

New Uniforms

SIR: I'm doing research on a piece about Navy uniform traditions. The August 1975 issue of All Hands indicated that bell-bottoms were being phased out. Now I am told that a survey indicated the cry was "bring back the bells." When and by what margin. —Helen O. Warinsky.

- *The decision in 1973 to replace the traditional jumper and bell-bottom uniform with a coat and tie style uniform was approached with the sailor's best interest in mind as affording a uniform which would be contemporary with the modern times. There was much controversy over the decision and the then Chief of Naval Operations subsequently initiated a survey to determine the true feelings of the fleet with regard to preferred uniforms as well as the economic constraints involved.*

Accordingly, a scientific poll was conducted by the Navy Personnel Research and Development Center which sampled the opinions of over 8,000 enlisted men at various stateside and overseas locations. The results showed that more than 80 percent of the respondees favored the bell-bottom style uniform. In addition, the unofficial poll conducted by a commercial publication received over 80,000 opinions and closely paralleled the findings of the official Navy survey. Therefore, in July 1977 the Chief of Naval Operations approved the return of the traditional jumper style uniforms for sailors in the first four paygrades (E1-E4).

The implementation of the July decision includes both a one-year evaluation of new material for the jumper style uniforms and the elimination of the double breasted coat issue beginning Oct. 1, 1978. Other E1-E4 personnel assigned to sea duty were permitted to voluntarily purchase the jumper style uniform in May 1978. Personnel assigned to shore installations and reservists were authorized to purchase the new uniform in August. The recruit issue of jumper style uniforms in October 1980 is planned.

Reservist Points

SIR: Is there any way a reservist can make up an unsatisfactory year? —J.L. Gutierrez, USNR.

- *The requirements for obtaining a satisfactory year for retirement pay purposes are contained in the Bureau of Naval Personnel Manual (BUPERSMAN), Article 3860520 and Title 10 United States Code. By an "unsatisfactory" year it is assumed you did not earn the required 50 points in your "anniversary" year to make that year qualifying for retirement. Retirement points earned in one year may not be credited to any other year. In order to make up an unsatisfactory year, a reservist must perform an additional year for qualifying service.*—ED.

Monster Subs

SIR: In reference to your article, "Midget Sub's Endless Journey" (August All Hands), and the photo caption for the "Japanese fleet-type subs..." (page 16), those are I-400 class aircraft-carrying submarines, not the standard fleet subs of the Imperial Japanese Navy.

There were four subs in this class, the largest at the time, and they were about the size of a DD. The I-24 that is mentioned in the article and the I-19, a sub class carrying only two aircraft, were more closely related to the fleet subs than the I-400 monsters. —YN2 Stafford.

Correct Evans

SIR: Concerning the September 1978 article "Atlantic Fleet's Reserve AVU 193," reference was made to the film "I Relieve You Sir," based on the 1969 collision of the USS *Evans* (DE 1023) and the Australian aircraft carrier HMAS *Melbourne* (21). I served aboard USS *Evans* (DE 1023) and it was not an uncommon occurrence to mistake us for the USS *Frank E. Evans* (DD 754) which was actually involved in the collision.—PNC G.F. Foozer.

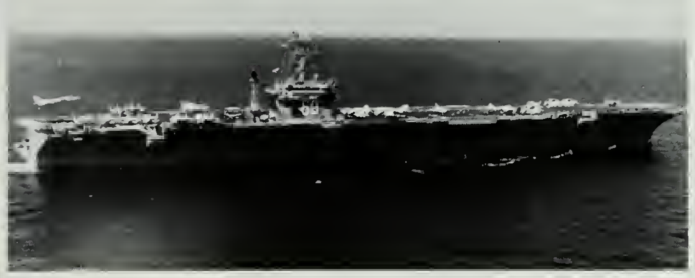
Reunions

- USS *Yorktown* (CV-5)—For all those who served aboard USS *Yorktown* from Sept. 30, 1937, through June 7, 1942, please contact Peter Montalvo, Secretary, USS *Yorktown* (CV 5) Club, 331 Partridge St., Albany, N.Y. 12208.
- USS *Ommaney Bay* (CVE 79)—Reunion planned for shipmates of this vessel and Composite Squadron 75. Contact A.R. Zubik, 10620 Ferncliff, Baton Rouge, La. 70815.
- USS *Mission Bay* (CVE 59)—Reunion July 12-15, 1979 in Denver, Colo. Contact Herbert H. Freise, P.O. Box 846, Walla Walla, Wash. 99362.
- USS *Waller* (DD 466)—Reunion of WW II crew members Aug. 30 through Sept. 2, 1979, In Denver, Colo. Contact Robert G. Howard, 4695 Ingalls St., Wheatridge, Colo. 80033 or Robert D. Sandefur, P.O. Box 978, Ruston, LA 71270.
- USS *Enterprise* (CV 6)—Reunion July 1979 in Hawaii. Contact Ed Doss, 1606 28th St., SE, Auburn, WA 98002.
- USS *Porter, Gwin, Walke, Preston, and Benham*—Reunion with USS *South Dakota* July 6-8, 1979. Contact Raymond Kanoff, 1210 N. 12th St., Norfolk, Neb. 68701

Stern Shots

Ship recognition classes are held during one's first weeks in the Navy, whether at the Naval Academy, Officer Candidate School or boot camp. Many of the drills concern foreign navies — but how well up are you on U.S. Navy ships? Check your current skill level by identifying both the names — and the class — of the following Navy ships.

A



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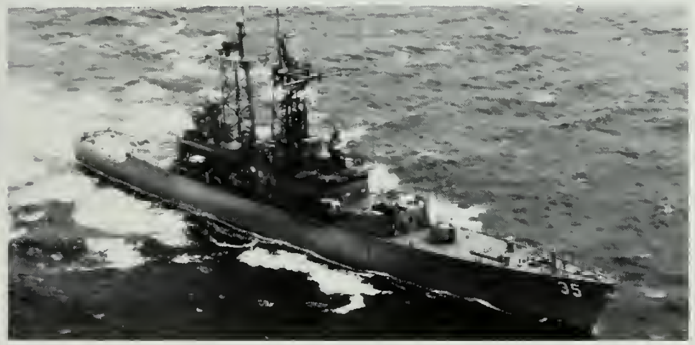

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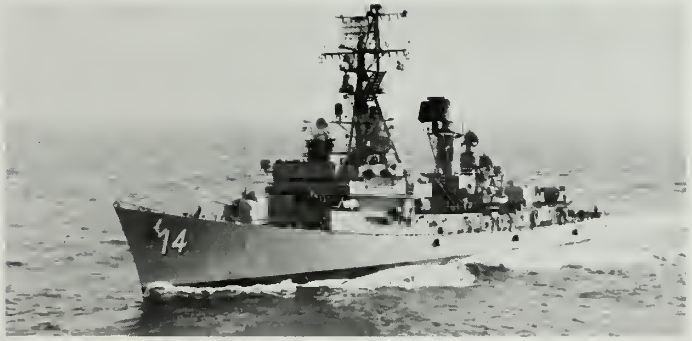

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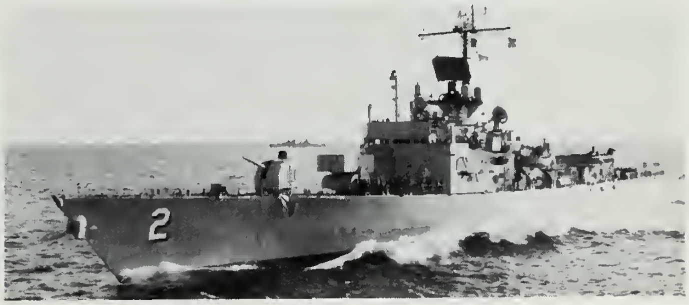

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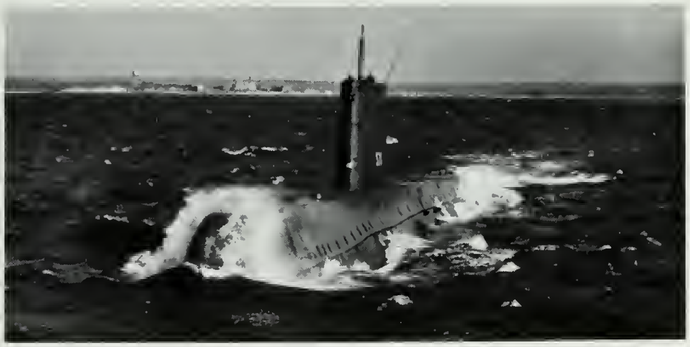

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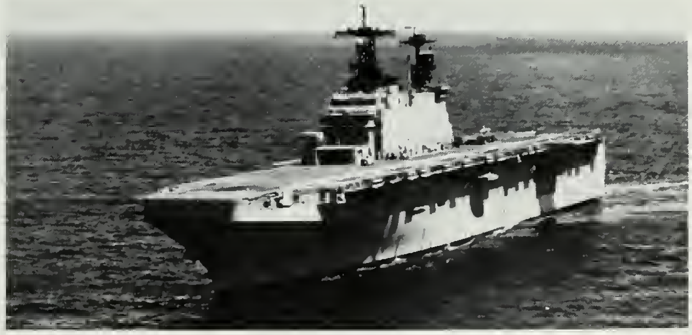

Answers: A — USS *Dwight D. Eisenhower* (CVN 69), nuclear-powered attack aircraft carrier, *Nimitz* class; B — USS *Truxton* (CGN 35), nuclear-powered guided missile cruiser, *Truxton* class; C — USS *Buchanan* (DDG 14), guided missile destroyer, *Charles F. Adams* class; D — USS *Ramsey* (FFG 2), guided missile frigate, *Brooke* class; E — USS *Nautilus* (SSN 571), nuclear-powered attack submarine, *Nautilus* class; F — USS *Tarawa* (LHA 1), amphibious warfare assault ship, *Tarawa* class.

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All-Navy Sailing • See page 33

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